

=> d 14

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:162462 CAPLUS  
DN 140:199340  
TI Preparation of pyrimidopyrimidinone derivatives having antiproliferative activity  
IN Chen, Yi; Daniewski, Andrzej Robert; Harris, William; Kabat, Marek Michal; Liu, Emily Aijun; Liu, Jin-jun; Luk, Kin-chun; Michoud, Christophe  
PA USA  
SO U.S. Pat. Appl. Publ., 25 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004038995	A1	20040226	US 2003-623972	20030721
	WO 2004018472	A2	20040304	WO 2003-EP8744	20030807
	WO 2004018472	A3	20040429		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2002-403519P	P	20020814		
OS	MARPAT	140:199340			

=> d 14 ibib abs hitstr

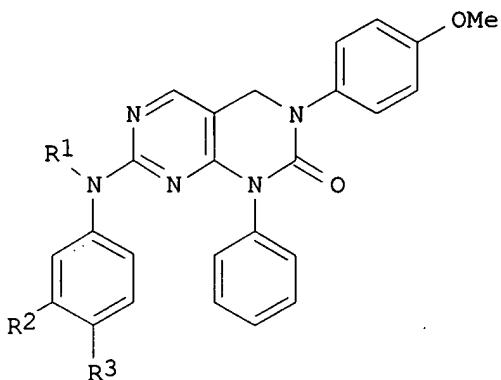
L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:162462 CAPLUS  
DOCUMENT NUMBER: 140:199340  
TITLE: Preparation of pyrimidopyrimidinone derivatives having antiproliferative activity  
INVENTOR(S): Chen, Yi; Daniewski, Andrzej Robert; Harris, William; Kabat, Marek Michal; Liu, Emily Aijun; Liu, Jin-jun; Luk, Kin-chun; Michoud, Christophe  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 25 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 2004038995	A1	20040226	US 2003-623972	20030721
	WO 2004018472	A2	20040304	WO 2003-EP8744	20030807
	WO 2004018472	A3	20040429		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				

UG, UZ, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-403519P P 20020814  
 OTHER SOURCE(S): MARPAT 140:199340

GI



AB The title I [R1 = H, COR4, COOCHR5OCOR4; R2, R3 = H or OR5; R4 = alkyl, or alkyl substituted by NR5R6, SR5, OR5, (substituted)aryl, heteroaryl, heterocycle; R5, R6 = H, alkyl or NR5R6 form a ring optionally including one or more addnl. N or O] were prepared as selective inhibitors of both KDR and FGFR kinases and are selective against LCK. Thus, reaction of 7-chloro-3-(4-methoxyphenyl)-1-phenyl-1,3,4-trihydropyrimidino[4,5-d]-2-one (preparation given) with aniline yielded compound II (R1, R2, R3 = H). The latter showed inhibition of KDR, FGFR, EGFR and PDGFR with IC50 = 0.044, 0.076, 0.360, and 0.130  $\mu$ M, resp.

IT 663198-30-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidopyrimidinone derivs. having antiproliferative activity)

RN 663198-30-9 CAPLUS

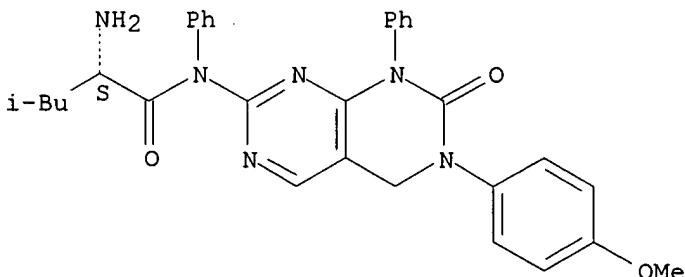
CN Pentanamide, 2-amino-4-methyl-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, (2S)-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 663198-29-6

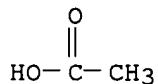
CMF C31 H32 N6 O3

Absolute stereochemistry.



CM 2

CRN 64-19-7  
CMF C2 H4 O2



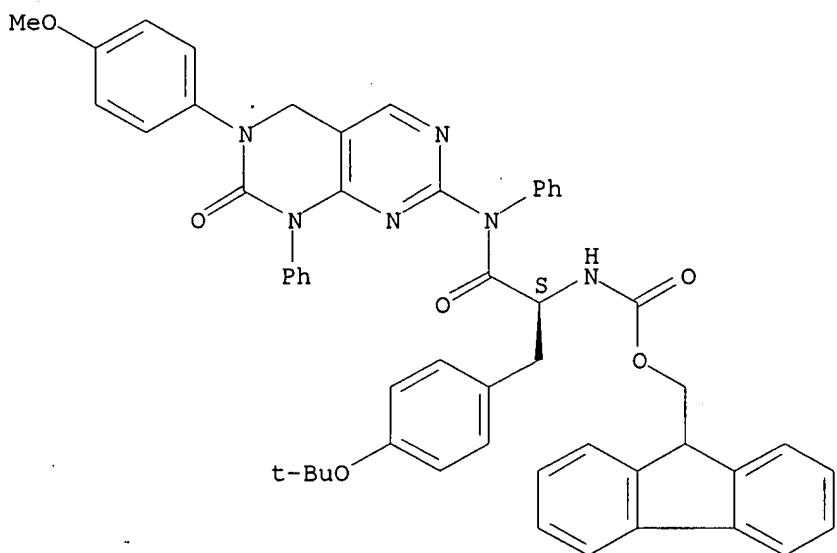
IT 663198-44-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of pyrimidopyrimidinone derivs. having antiproliferative activity)

RN 663198-44-5 CAPLUS

CN Carbamic acid, [(1S)-1-[[4-(1,1-dimethylethoxy)phenyl]methyl]-2-oxo-2-[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]ethyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> fil hcaplus  
FILE 'HCAPLUS' ENTERED AT 16:10:13 ON 10 MAY 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

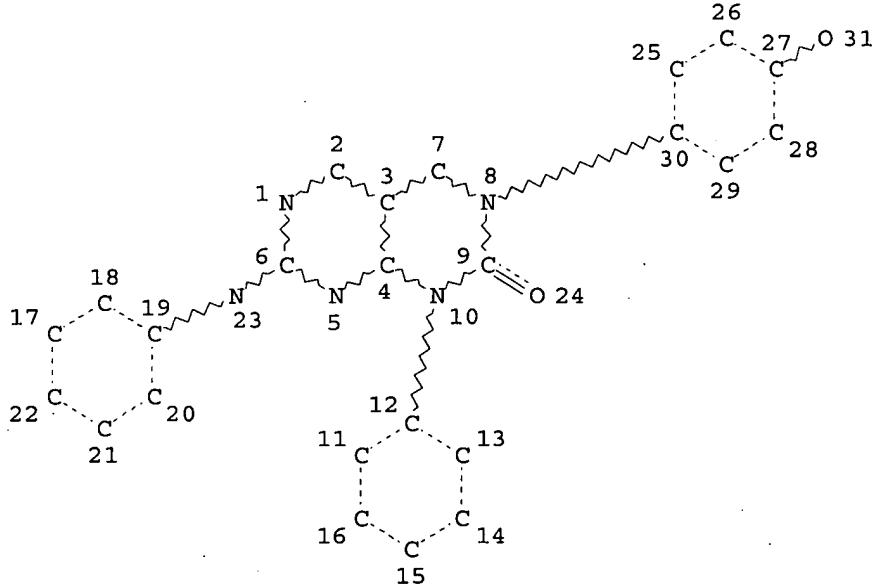
Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 10 May 2005 VOL 142 ISS 20  
FILE LAST UPDATED: 9 May 2005 (20050509/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=>  
=>  
  
=> d stat que  
L1 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

L3 69 SEA FILE=REGISTRY SSS FUL L1  
L4 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L3=>  
=>

=&gt; d ibib abs hitstr 14 1-3

L4 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:412946 HCAPLUS  
 DOCUMENT NUMBER: 140:423694  
 TITLE: Preparation of pyrimidopyrimidinone derivatives having  
 anticancer activity  
 INVENTOR(S): Dermatakis, Apostolos; Kabat, Marek Michal; Luk,  
 Kin-Chun; Rossman, Pamela Loreen; So, Sung-Sau  
 PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.  
 SOURCE: PCT Int. Appl., 85 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041822	A1	20040521	WO 2003-EP11896	20031027
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004110773	A1	20040610	US 2003-689438	20031020
US 2005075272	A1	20050407	US 2003-689235	20031020
PRIORITY APPLN. INFO.:			US 2002-423670P	P 20021104
OTHER SOURCE(S):	MARPAT 140:423694			
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. I [R1 = H, (substituted)alkyl, (substituted)aryl,  
 (substituted)heteroaryl, (substituted)heterocycle,  
 (substituted)cycloalkyl, (substituted)alkenyl, (substituted)alkynyl; R2,  
 R3, R4 = H, halo, COR10, CO2R10, CONR10R11, SOR10, SO2R10, CN, or NO2; R5,  
 R6, R7, R8 = H, (substituted)alkyl, (substituted)amino, OH, halo, etc.; R9  
 = H, -COOCR12R13OCOR14, or COR15; R10, R11 = H, (substituted)alkyl,  
 (substituted)cycloalkyl, (substituted)heterocycle, etc.; R12, R13 = H,  
 alkyl; R14 = (substituted)alkyl; R15 = H, alkyl or cycloamines with 3-7  
 atoms] were prepared as anti-proliferative agents for the treatment or  
 control of solid tumors, in particular breast, colon, lung and prostate

tumors. For example, reaction of 7-chloro-3-(4-methoxyphenyl)-4-methyl-1-phenyl-3,4-dihydro-1H-pyrimido[4,5-d]-2-one (preparation given) with aniline yielded compound II. The latter showed inhibition of KDR, FGFR, EGFR and PDGFR with IC<sub>50</sub> < 10  $\mu$ M.

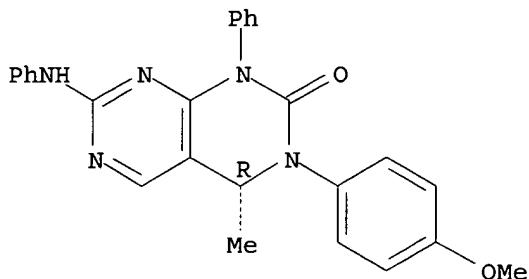
IT 690991-80-1P 690991-82-3P

RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of pyrimidopyrimidinone derivs. having anticancer activity)

RN 690991-80-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-1-phenyl-7-(phenylamino)-, (4R)- (9CI) (CA INDEX NAME)

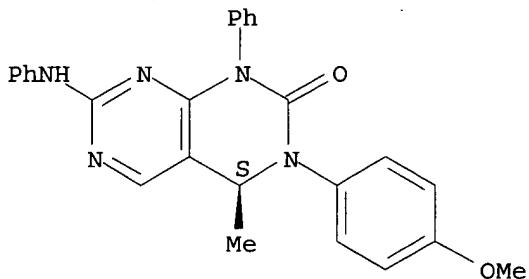
Absolute stereochemistry.



RN 690991-82-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-1-phenyl-7-(phenylamino)-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

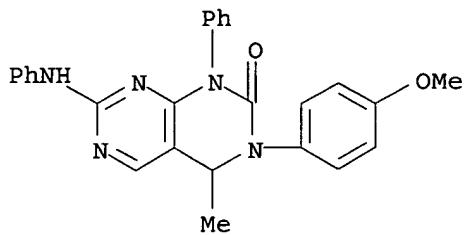


IT 690991-78-7P 690991-94-7P

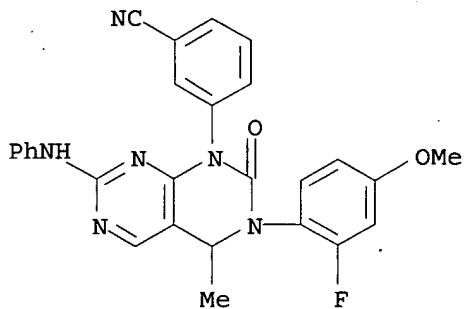
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of pyrimidopyrimidinone derivs. having anticancer activity)

RN 690991-78-7 HCAPLUS

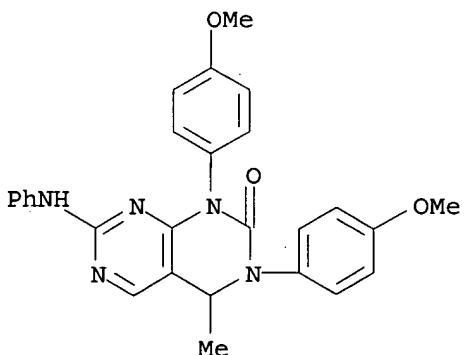
CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)



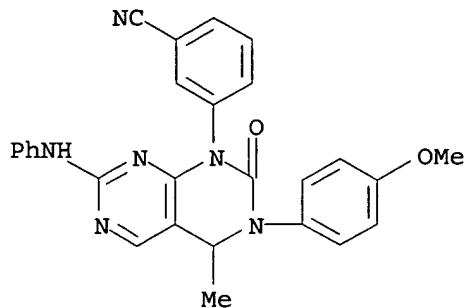
RN 690991-94-7 HCPLUS  
 CN Benzonitrile, 3-[3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-4-methyl-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)



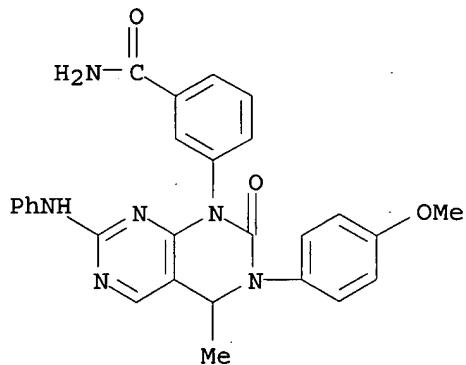
IT 690991-84-5P 690991-86-7P 690991-88-9P  
 690991-90-3P 690991-92-5P 690991-96-9P  
 690991-98-1P 690992-14-4P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of pyrimidopyrimidinone derivs. having anticancer activity)  
 RN 690991-84-5 HCPLUS  
 CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1,3-bis(4-methoxyphenyl)-4-methyl-7-(phenylamino)- (9CI) (CA INDEX NAME)



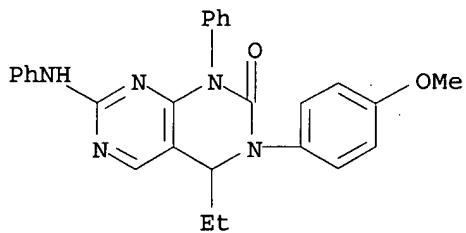
RN 690991-86-7 HCPLUS  
 CN Benzonitrile, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)



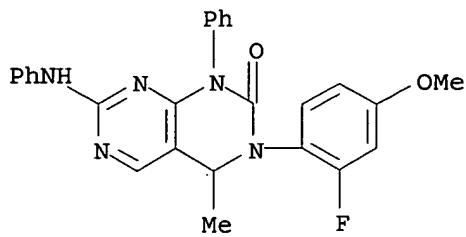
RN 690991-88-9 HCPLUS  
CN Benzamide, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)



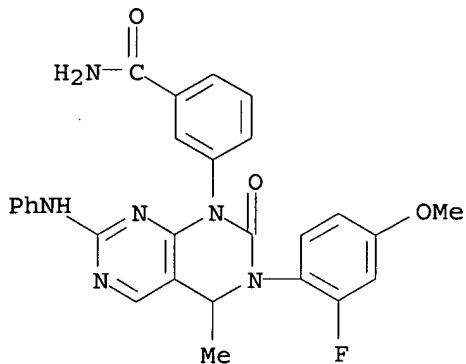
RN 690991-90-3 HCAPLUS  
CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 4-ethyl-3,4-dihydro-3-(4-methoxyphenyl)-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)



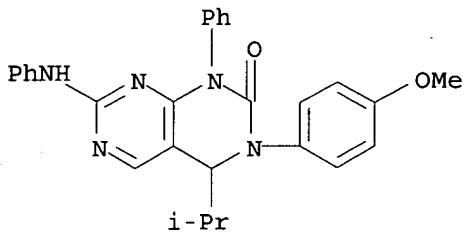
RN 690991-92-5 HCPLUS  
CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-4-methyl-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)



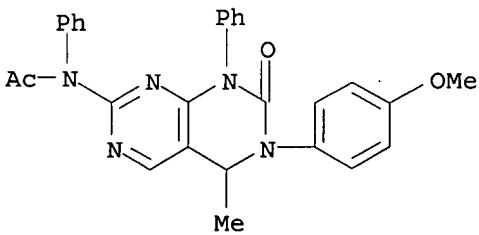
RN 690991-96-9 HCAPLUS  
 CN Benzamide, 3-[3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-4-methyl-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)



RN 690991-98-1 HCAPLUS  
 CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-4-(1-methylethyl)-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)



RN 690992-14-4 HCAPLUS  
 CN Acetamide, N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-5-methyl-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:412945 HCPLUS  
 DOCUMENT NUMBER: 140:423693  
 TITLE: Preparation of pyrimido Src tyrosine kinase inhibitors as anti-proliferative agents for the treatment of cancer  
 INVENTOR(S): Luk, Kin-Chun; Rossman, Pamela Loreen; Scheiblich, Stefan; So, Sung-Sau  
 PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.  
 SOURCE: PCT Int. Appl., 59 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041821	A1	20040521	WO 2003-EP311892	20031027
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004110773	A1	20040610	US 2003-689438	20031020
US 2005075272	A1	20050407	US 2003-689235	20031020
PRIORITY APPLN. INFO.:			US 2002-423670P	P 20021104
OTHER SOURCE(S):	MARPAT	140:423693		

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB MovPyrimido compds. I (R1 = H, alkyl, substituted alkyl, aryl, heteroaryl, heterocycle, cycloalkyl, alkenyl, alkynyl; R2, R3, R4 independently = H, amine, alkoxy, sulfanyl, alkyl, cycloalkyl, alkenyl, alkynyl; R5, R6, R7, R8 independently = H, lower alkyl, amine, OH, alkoxy, sulfanyl, halogen, ketone, ester, amide, sulfonyl, CN; R9 = H, diester, ketone), that are selective inhibitors of the Src family of tyrosine kinases are prepared for the treatment of breast, colon, pancreatic, and hepatic cancers. Thus, 1-(2,4-dichloro-pyrimidin-5-yl)-ethanol was treated with phosphorus oxybromide and diisopropyl amine to give 2,4-dichloro-5-(1-bromoethyl)-pyrimidine which was treated with p-anisidine, potassium carbonate, and potassium iodide to give the corresponding amine. The above amine was reacted with 3-cyanophenyl isocyanate in toluene to give II. II was reacted with acetic acid 2-(3-amino-phenyl)-Et ester, followed by treatment with potassium carbonate in methanol to give III. III showed and IC50 of less than 1.0  $\mu$ M against Src tyrosine kinase. Also disclosed are pharmaceutical compns. containing these compds. and the use for

treating cancer.

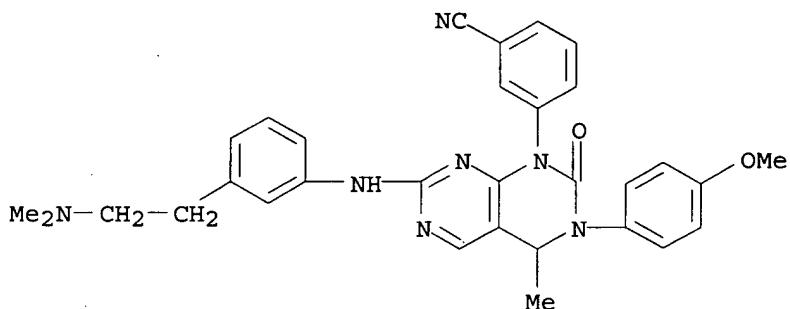
IT 690995-25-6P 690995-29-0P 690995-31-4P

690995-33-6P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of pyrimido Src tyrosine kinase inhibitors as anti-proliferative agents for the treatment of cancer)

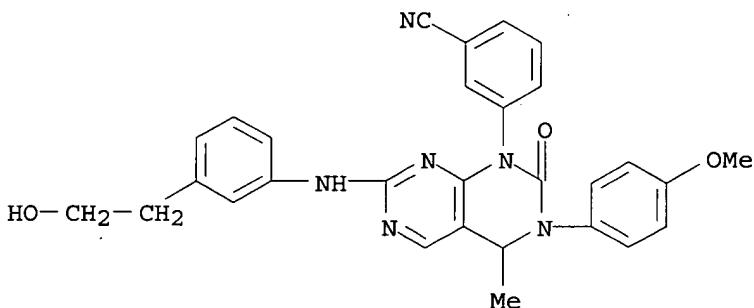
RN 690995-25-6 HCPLUS

CN Benzonitrile, 3-[7-[[3-[2-(dimethylamino)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl] - (9CI)  
(CA INDEX NAME)



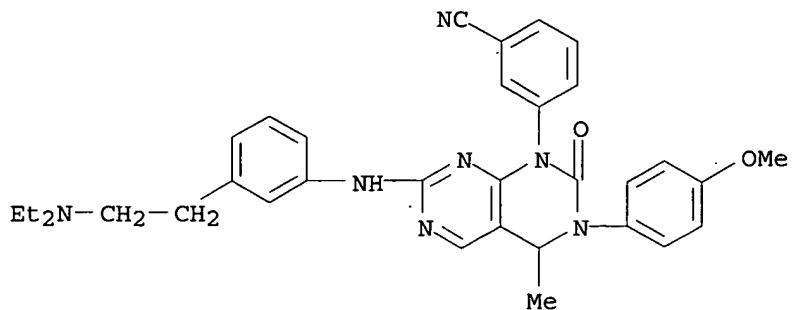
RN 690995-29-0 HCPLUS

CN Benzonitrile, 3-[3,4-dihydro-7-[[3-[2-hydroxyethyl]phenyl]amino]-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl] - (9CI)  
(CA INDEX NAME)



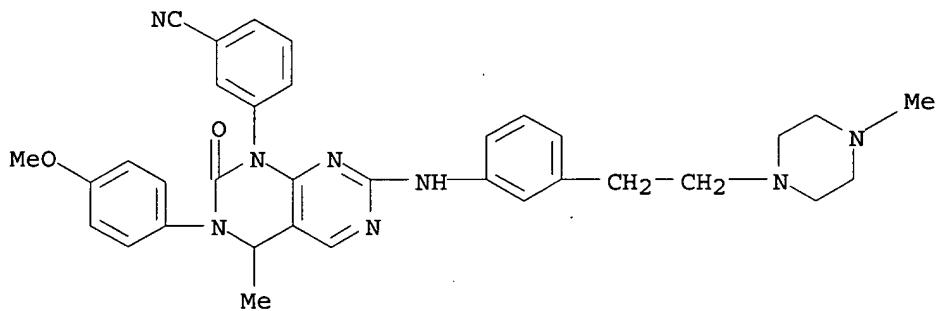
RN 690995-31-4 HCPLUS

CN Benzonitrile, 3-[7-[[3-[2-(diethylamino)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl] - (9CI)  
(CA INDEX NAME)



RN 690995-33-6 HCAPLUS

CN Benzonitrile, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-[[3-[2-(4-methyl-1-piperazinyl)ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-(9CI) (CA INDEX NAME)



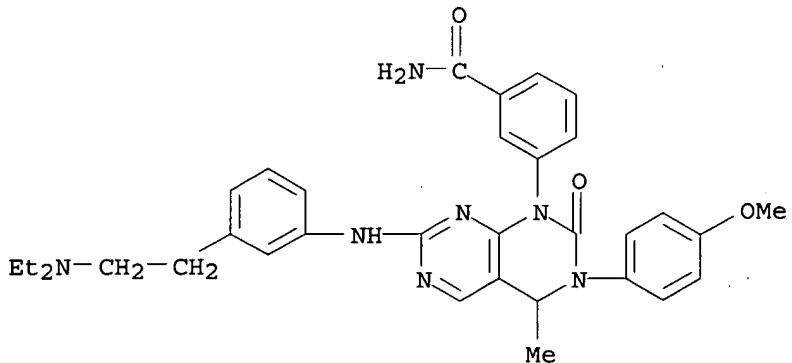
IT 690995-35-8P 690995-36-9P 690995-37-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimido Src tyrosine kinase inhibitors as anti-proliferative agents for the treatment of cancer)

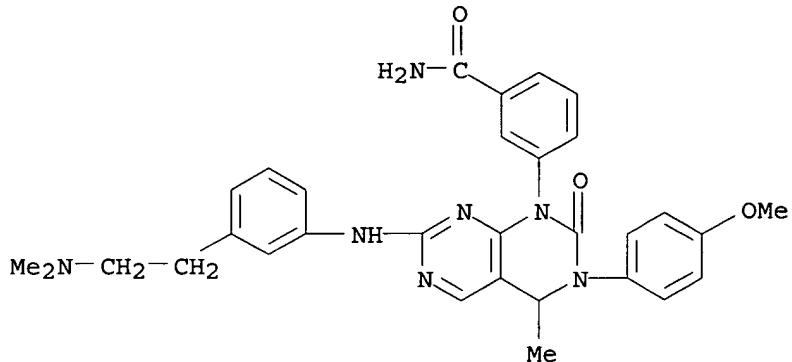
RN 690995-35-8 HCAPLUS

CN Benzamide, 3-[[7-[[3-[2-(diethylamino)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-(9CI) (CA INDEX NAME)



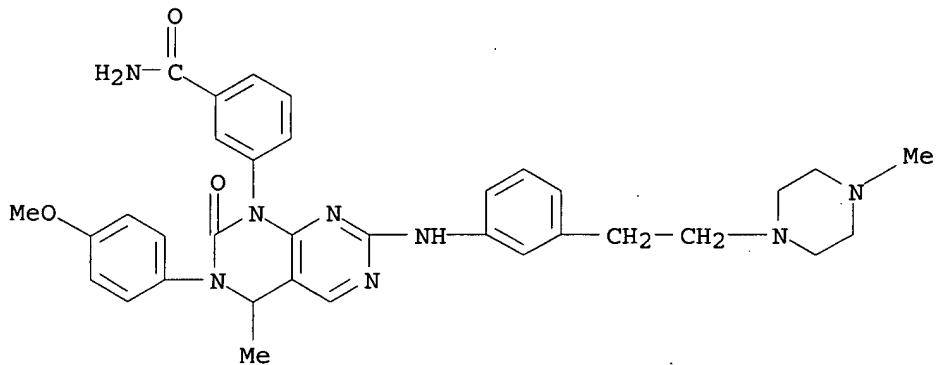
RN 690995-36-9 HCAPLUS

CN Benzamide, 3-[7-[[3-[2-(dimethylamino)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl] - (9CI) (CA INDEX NAME)



RN 690995-37-0 HCAPLUS

CN Benzamide, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-[[3-[2-(4-methyl-1-piperazinyl)ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl] - (9CI) (CA INDEX NAME)



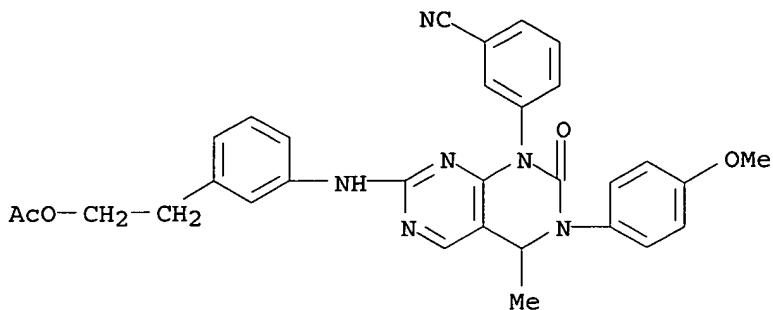
IT 690995-23-4P 690995-24-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimido Src tyrosine kinase inhibitors as anti-proliferative agents for the treatment of cancer)

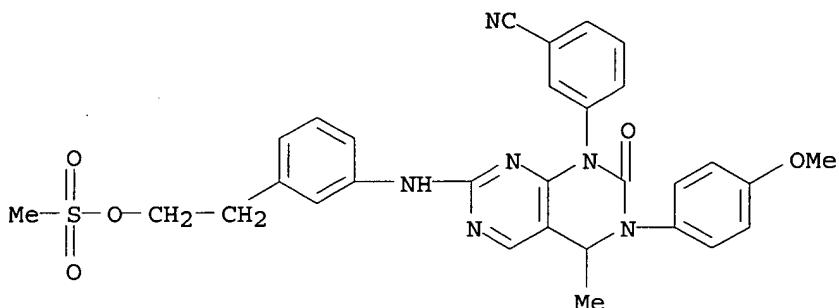
RN 690995-23-4 HCAPLUS

CN Benzonitrile, 3-[7-[[3-[2-(acetyloxy)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl] - (9CI) (CA INDEX NAME)



RN 690995-24-5 HCPLUS

CN Benzonitrile, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-[[3-[(2-methylsulfonyl)oxy]ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-(9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 3 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:162462 HCPLUS

DOCUMENT NUMBER: 140:199340

TITLE: Preparation of pyrimidopyrimidinone derivatives having antiproliferative activity

INVENTOR(S): Chen, Yi; Daniewski, Andrzej Robert; Harris, William; Kabat, Marek Michal; Liu, Emily Aijun; Liu, Jin-jun; Luk, Kin-chun; Michoud, Christophe

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 25 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

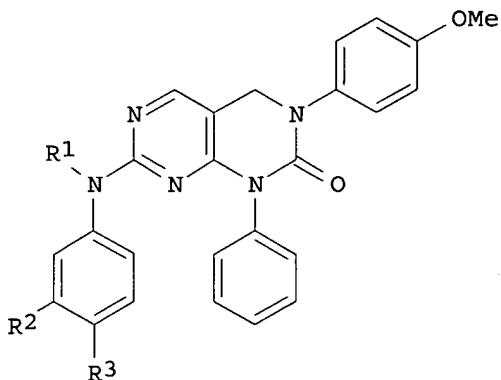
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004038995	A1	20040226	US 2003-623972	20030721
WO 2004018472	A2	20040304	WO 2003-EP8744	20030807
WO 2004018472	A3	20040429		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,				

UG, UZ, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-403519P P 20020814

OTHER SOURCE(S): MARPAT 140:199340

GI



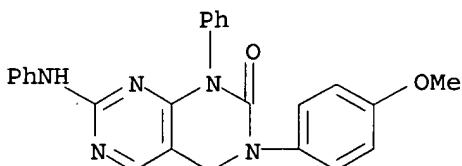
AB The title I [R1 = H, COR4, COOCHR5OCOR4; R2, R3 = H or OR5; R4 = alkyl, or alkyl substituted by NR5R6, SR5, OR5, (substituted)aryl, heteroaryl, heterocycle; R5, R6 = H, alkyl or NR5R6 form a ring optionally including one or more addnl. N or O] were prepared as selective inhibitors of both KDR and FGFR kinases and are selective against LCK. Thus, reaction of 7-chloro-3-(4-methoxyphenyl)-1-phenyl-1,3,4-trihydropyrimidino[4,5-d]-2-one (preparation given) with aniline yielded compound II (R1, R2, R3 = H). The latter showed inhibition of KDR, FGFR, EGFR and PDGFR with IC50 = 0.044, 0.076, 0.360, and 0.130  $\mu$ M, resp.

IT 663198-02-5P 663198-06-9P 663198-08-1P  
 663198-09-2P 663198-20-7P 663198-27-4P  
 663198-33-2P 663198-34-3P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of pyrimidopyrimidinone derivs. having antiproliferative activity)

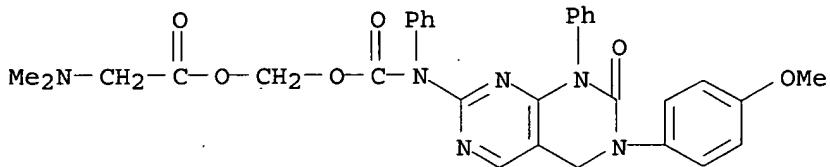
RN 663198-02-5 HCPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)



RN 663198-06-9 HCPLUS

CN Glycine, N,N-dimethyl-, [[[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]carbonyl]oxy]methyl ester  
(9CI) (CA INDEX NAME)



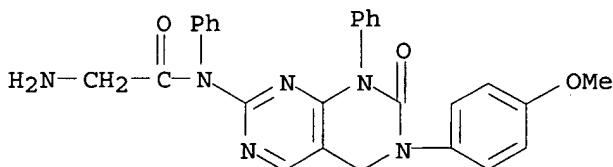
RN 663198-08-1 HCAPLUS

CN Acetamide, 2-amino-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 663198-07-0

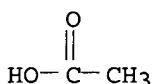
CMF C27 H24 N6 O3



CM 2

CRN 64-19-7

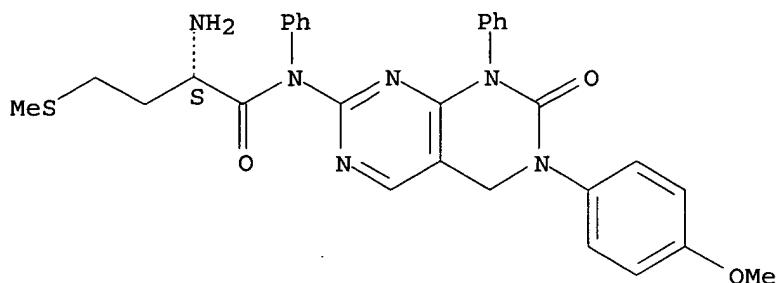
CMF C2 H4 O2



RN 663198-09-2 HCAPLUS

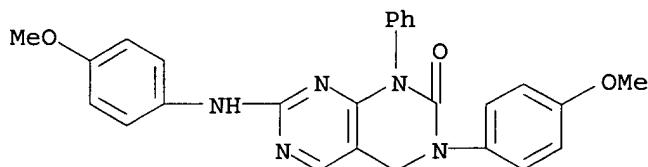
CN Butanamide, 2-amino-4-(methylthio)-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 663198-20-7 HCAPLUS

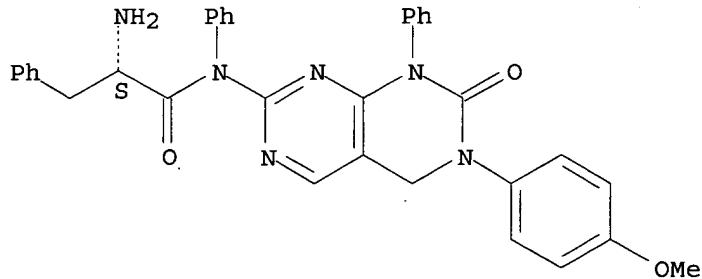
CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-7-[(4-methoxyphenyl)amino]-1-phenyl- (9CI) (CA INDEX NAME)



RN 663198-27-4 HCAPLUS

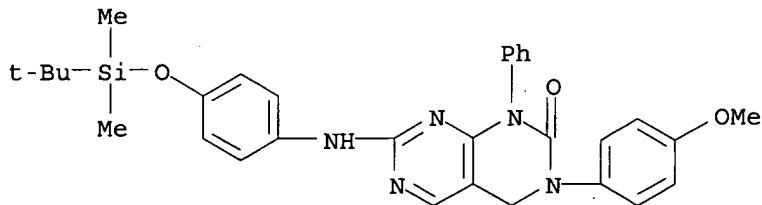
CN Benzenepropanamide,  $\alpha$ -amino-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, ( $\alpha$ S)-(9CI) (CA INDEX NAME)

## Absolute stereochemistry.



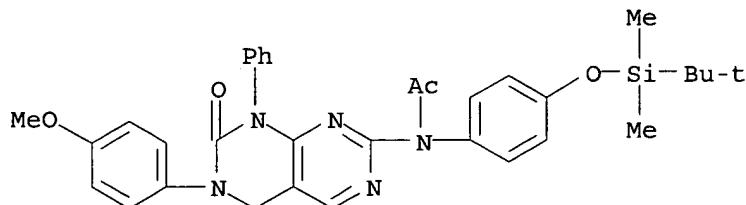
RN 663198-33-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-[(1,1-dimethylethyl)dimethylsilyl]oxy]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



RN 663198-34-3 HCAPLUS

Acetamide, N-[4-[(1,1-dimethylethyl)dimethylsilyl]oxy]phenyl]-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)



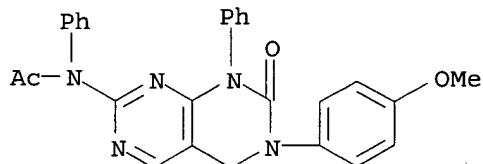
IT	663198-03-6P	663198-04-7P	663198-05-8P
	663198-10-5P	663198-11-6P	663198-12-7P
	663198-13-8P	663198-15-0P	663198-16-1P
	663198-17-2P	663198-18-3P	663198-19-4P
	663198-21-8P	663198-22-9P	663198-23-0P
	663198-24-1P	663198-25-2P	663198-26-3P
	663198-28-5P	663198-30-9P	663198-31-0P
	663198-32-1P		

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidopyrimidinone derivs. having antiproliferative activity)

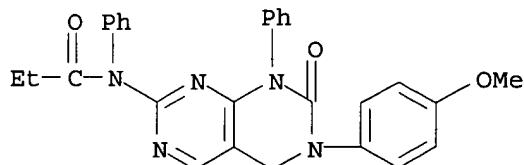
RN 663198-03-6 HCAPLUS

CN Acetamide, N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-(9CI) (CA INDEX NAME)



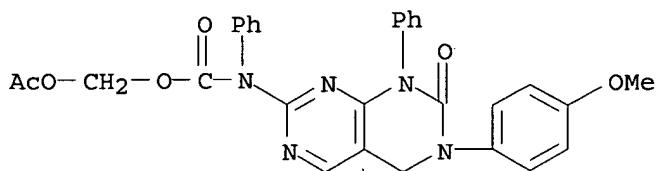
RN 663198-04-7 HCAPLUS

CN Propanamide, N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl] - (9CI) (CA INDEX NAME)



RN 663198-05-8 HCAPLUS

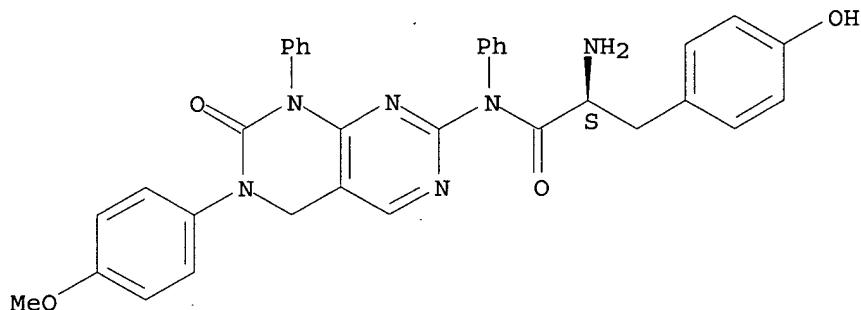
CN Carbamic acid, phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, (acetoxy)methyl ester (9CI) (CA INDEX NAME)



RN 663198-10-5 HCAPLUS

CN Benzenepropanamide,  $\alpha$ -amino-4-hydroxy-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, monohydrochloride, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

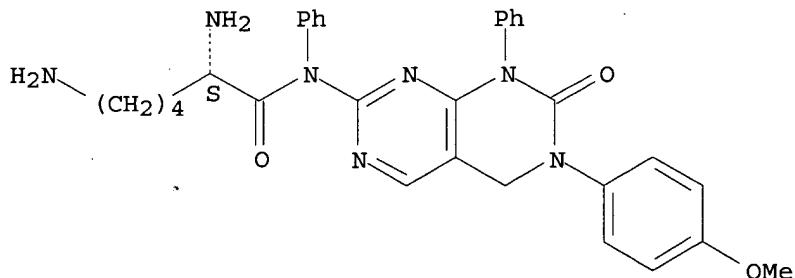


● HCl

RN 663198-11-6 HCAPLUS

CN Hexanamide, 2,6-diamino-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, dihydrochloride, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



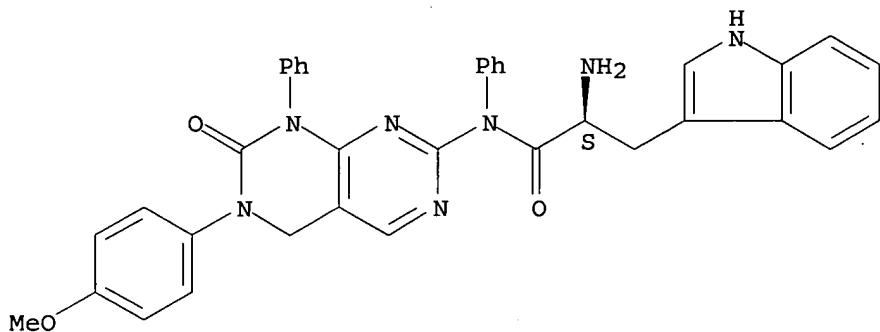
● 2 HCl

RN 663198-12-7 HCAPLUS

CN 1H-Indole-3-propanamide,  $\alpha$ -amino-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-,

monohydrochloride, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

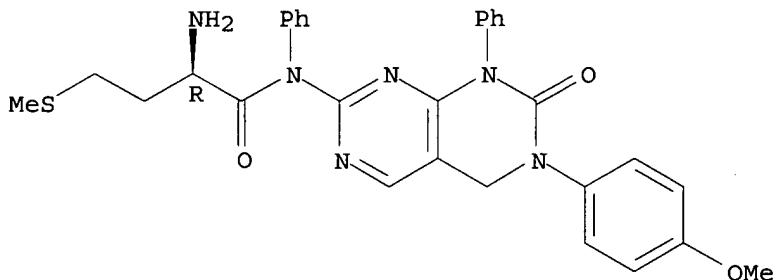


● HCl

RN 663198-13-8 HCPLUS

CN Butanamide, 2-amino-4-(methylthio)-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

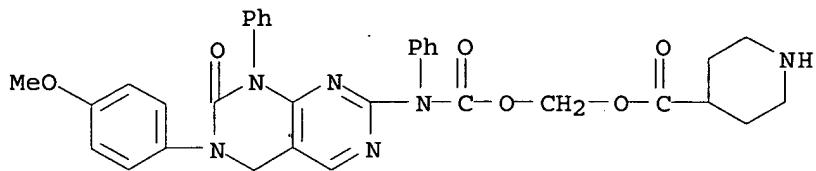
RN 663198-15-0 HCPLUS

CN 4-Piperidinecarboxylic acid, [[[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]carbonyl]oxy]methyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

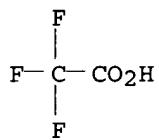
CM 1

CRN 663198-14-9

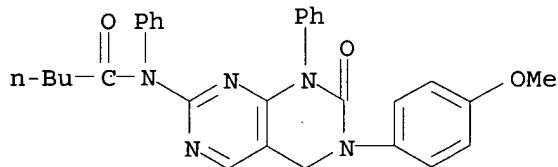
CMF C33 H32 N6 O6



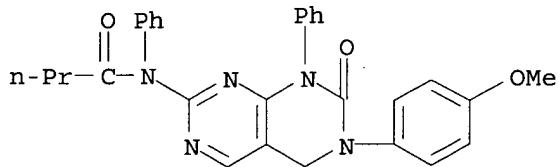
CM 2

CRN 76-05-1  
CMF C2 H F3 O2

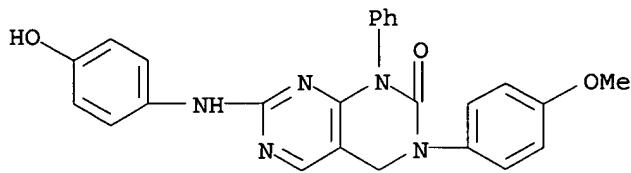
RN 663198-16-1 HCPLUS  
 CN Pentanamide, N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl] - (9CI) (CA INDEX NAME)



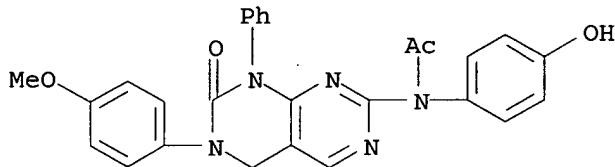
RN 663198-17-2 HCPLUS  
 CN Butanamide, N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl] - (9CI) (CA INDEX NAME)



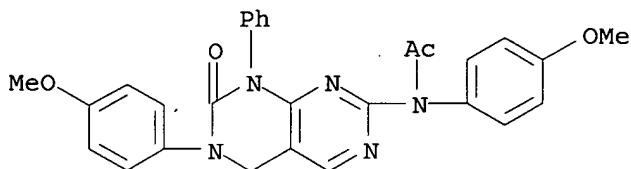
RN 663198-18-3 HCPLUS  
 CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-7-[(4-hydroxyphenyl)amino]-3-(4-methoxyphenyl)-1-phenyl - (9CI) (CA INDEX NAME)



RN 663198-19-4 HCAPLUS  
 CN Acetamide, N- (4-hydroxyphenyl)-N- [5,6,7,8-tetrahydro-6- (4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl] - (9CI) (CA INDEX NAME)



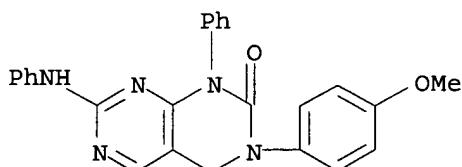
RN 663198-21-8 HCAPLUS  
 CN Acetamide, N- (4-methoxyphenyl)-N- [5,6,7,8-tetrahydro-6- (4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl] - (9CI) (CA INDEX NAME)



RN 663198-22-9 HCAPLUS  
 CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3- (4-methoxyphenyl)-1-phenyl-7- (phenylamino)-, mono (methanesulfonate) (9CI) (CA INDEX NAME)

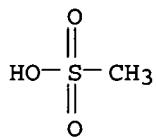
CM 1

CRN 663198-02-5  
 CMF C25 H21 N5 O2



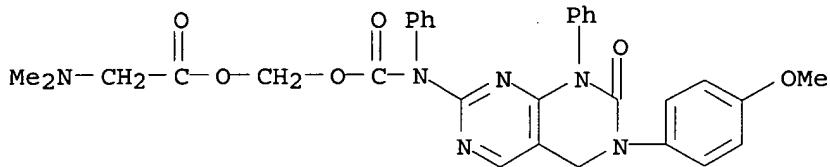
CM 2

CRN 75-75-2  
 CMF C H4 O3 S



RN 663198-23-0 HCAPLUS

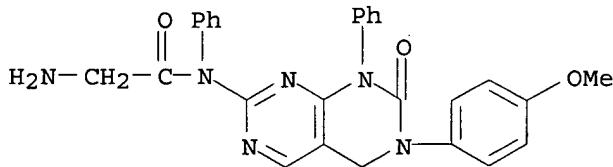
CN Glycine, N,N-dimethyl-, [[[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]carbonyl]oxy]methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 663198-24-1 HCAPLUS

CN Acetamide, 2-amino-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 663198-25-2 HCAPLUS

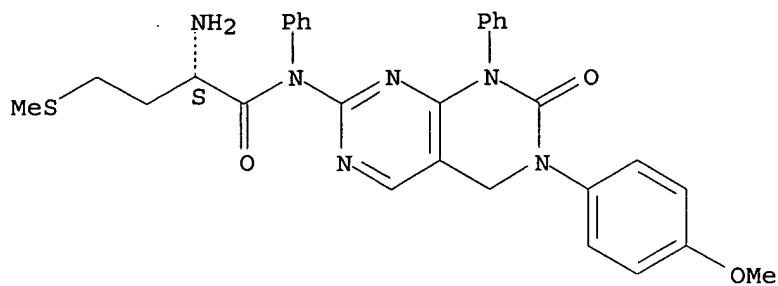
CN Butanamide, 2-amino-4-(methylthio)-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, (2S)-, monoacetate (9CI) (CA INDEX NAME)

CM 1

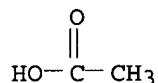
CRN 663198-09-2

CMF C30 H30 N6 O3 S

Absolute stereochemistry.

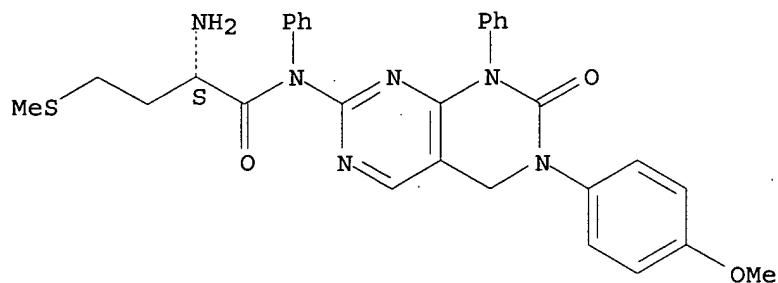


CM 2

CRN 64-19-7  
CMF C2 H4 O2

RN 663198-26-3 HCAPLUS  
 CN Butanamide, 2-amino-4-(methylthio)-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, (2S)-, monohydrochloride (9CI) (CA INDEX NAME)

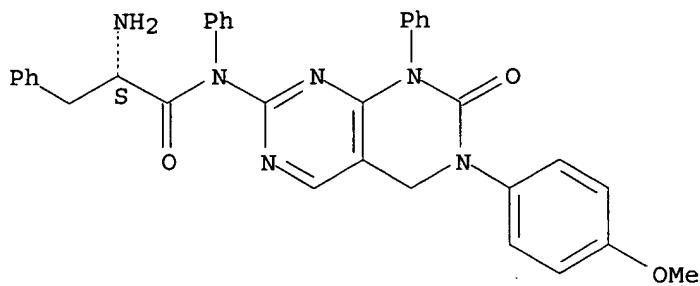
Absolute stereochemistry.



● HCl

RN 663198-28-5 HCAPLUS  
 CN Benzenepropanamide,  $\alpha$ -amino-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, ( $\alpha$ S)-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 663198-30-9 HCAPLUS

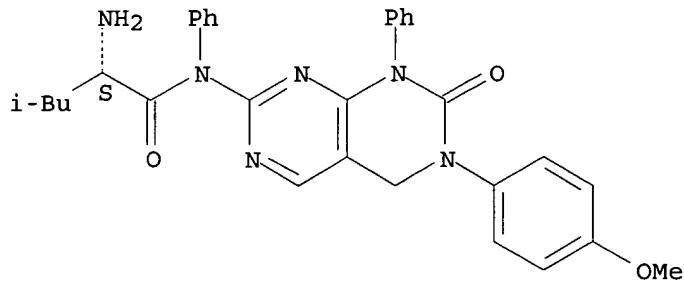
CN Pentanamide, 2-amino-4-methyl-N-phenyl-N- [5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, (2S)-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 663198-29-6

CMF C31 H32 N6 O3

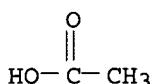
Absolute stereochemistry.



CM 2

CRN 64-19-7

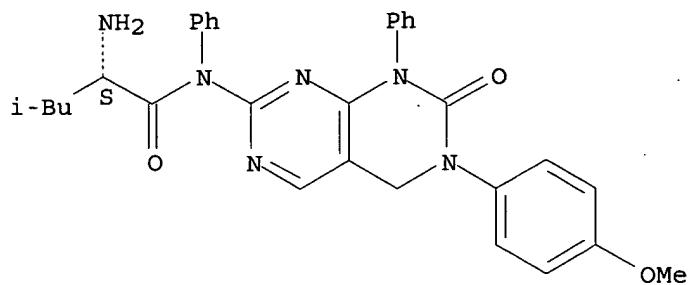
CMF C2 H4 O2



RN 663198-31-0 HCAPLUS

CN Pentanamide, 2-amino-4-methyl-N-phenyl-N- [5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, (2S)-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

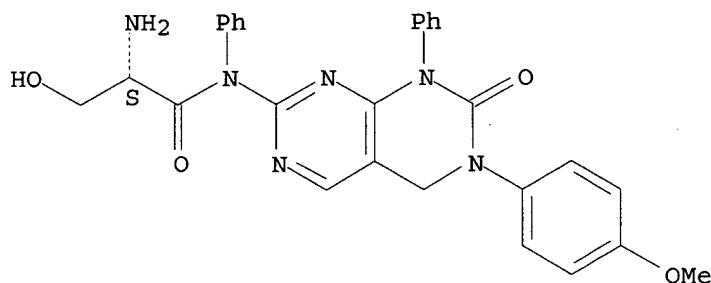


● HCl

RN 663198-32-1 HCPLUS

CN Propanamide, 2-amino-3-hydroxy-N-phenyl-N-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

IT 663198-38-7P 663198-39-8P 663198-41-2P

663198-42-3P 663198-44-5P 663198-46-7P

663198-47-8P 663198-48-9P 663198-50-3P

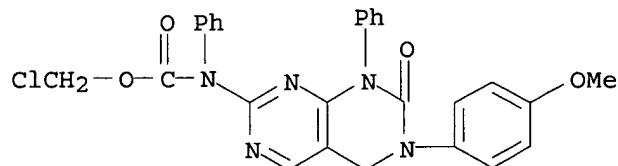
663198-51-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimidopyrimidinone derivs. having antiproliferative activity)

RN 663198-38-7 HCPLUS

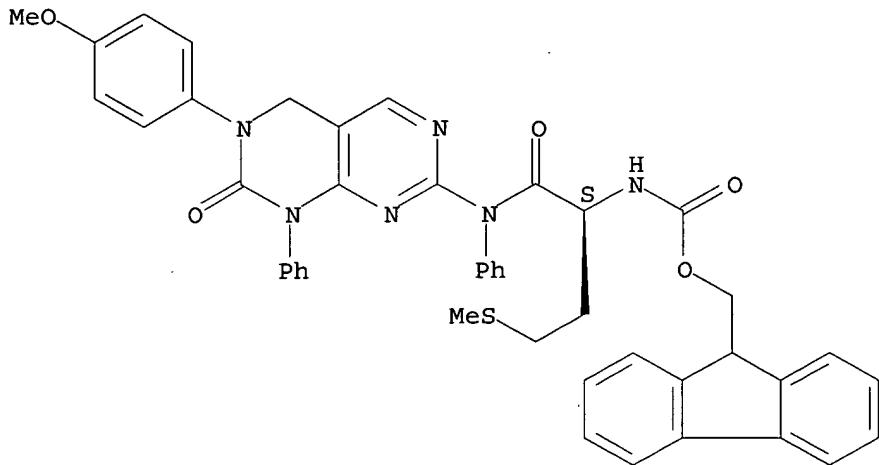
CN Carbamic acid, phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]-, chloromethyl ester (9CI) (CA INDEX NAME)



RN 663198-39-8 HCAPLUS

CN Carbamic acid, [(1S)-3-(methylthio)-1-[[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]carbonyl]propyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

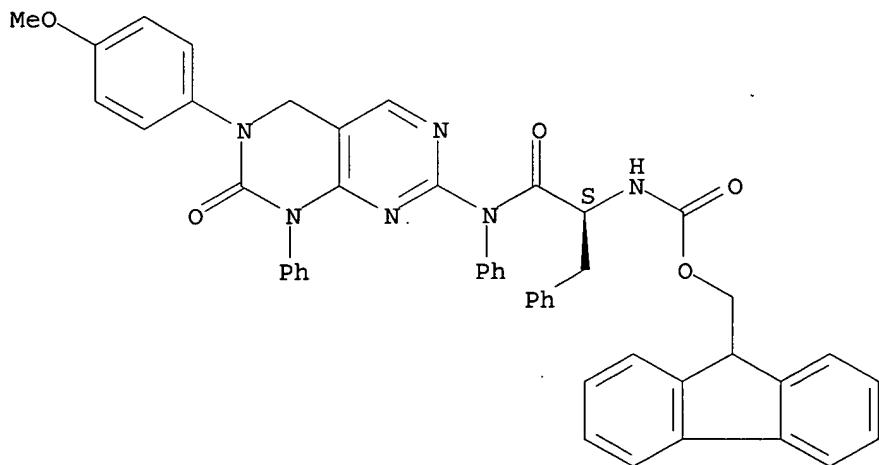
Absolute stereochemistry.



RN 663198-41-2 HCAPLUS

CN Carbamic acid, [(1S)-2-oxo-2-[[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]-1-(phenylmethyl)ethyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

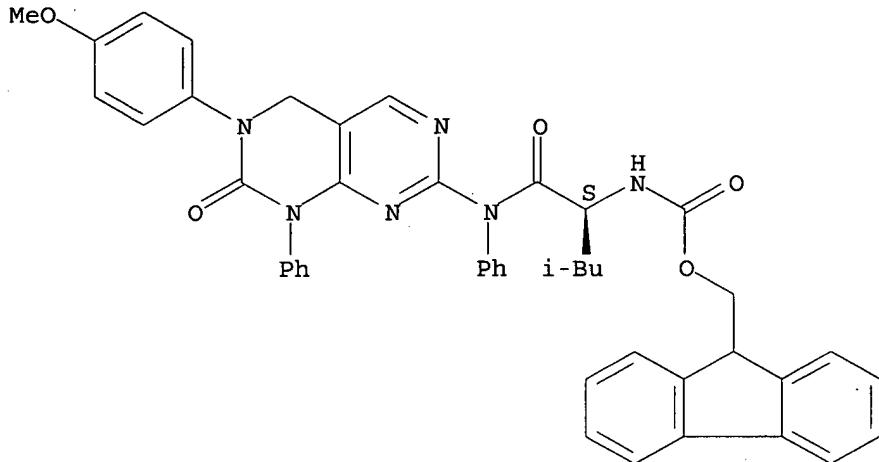
Absolute stereochemistry.



RN 663198-42-3 HCAPLUS

CN Carbamic acid, [(1S)-3-methyl-1-[[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]carbonyl]butyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

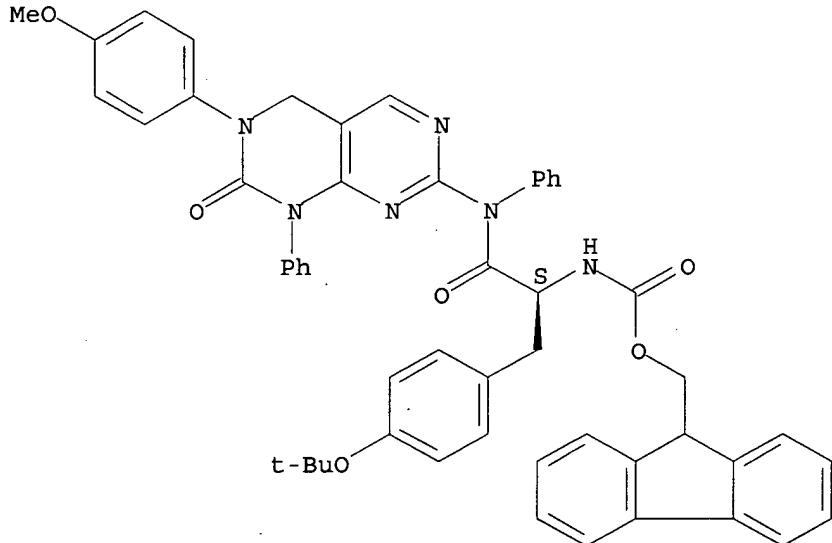
## Absolute stereochemistry.



RN 663198-44-5 HCAPLUS

CN Carbamic acid, [(1S)-1-[(4-(1,1-dimethylethoxy)phenyl)methyl]-2-oxo-2-phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]ethyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

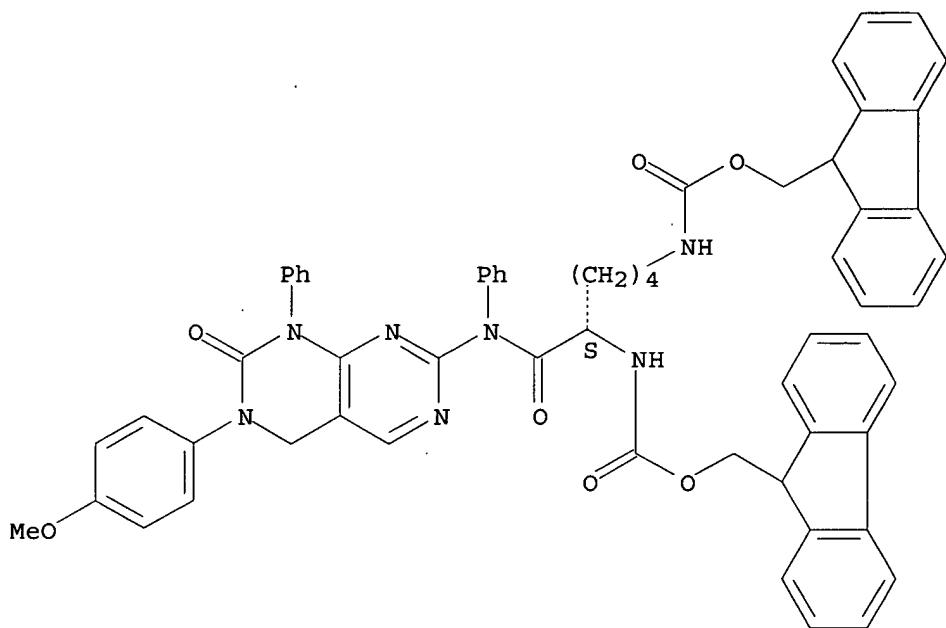
## Absolute stereochemistry.



RN 663198-46-7 HCAPLUS

CN Carbamic acid, [(1S)-1-[[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]carbonyl]-1,5-pentanediyl]bis-, bis(9H-fluoren-9-ylmethyl) ester (9CI) (CA INDEX NAME)

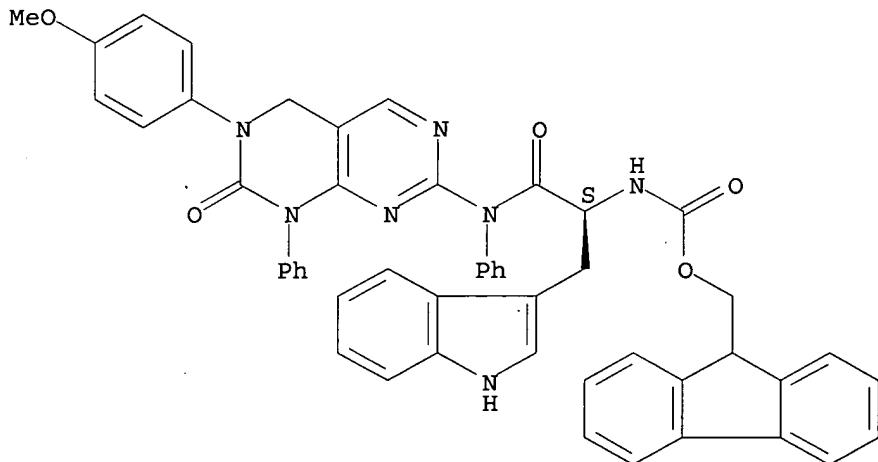
## Absolute stereochemistry.



RN 663198-47-8 HCAPLUS

CN Carbamic acid, [(1S)-1-(1H-indol-3-ylmethyl)-2-oxo-2-[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]ethyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

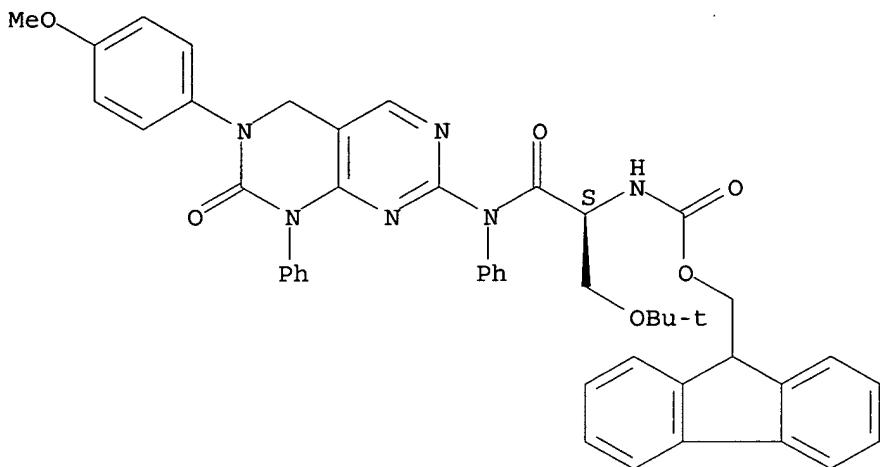
Absolute stereochemistry.



RN 663198-48-9 HCAPLUS

CN Carbamic acid, [(1S)-1-[(1,1-dimethylethoxy)methyl]-2-oxo-2-[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]phenylamino]ethyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

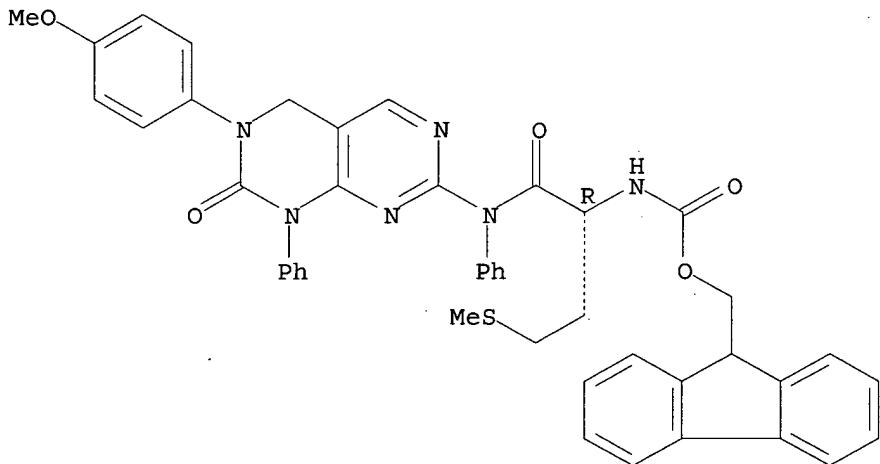
Absolute stereochemistry.



RN 663198-50-3 HCAPLUS

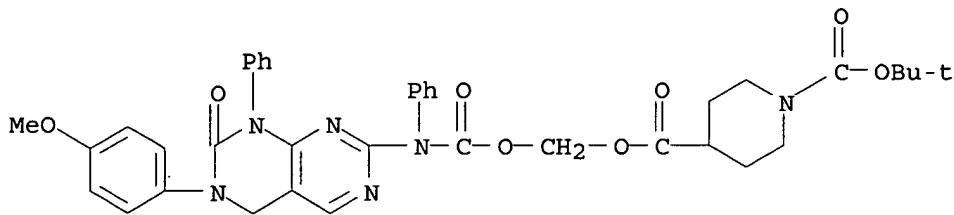
CN Carbamic acid, [(1*R*)-3-(methylthio)-1-[[[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]phenylamino]carbonyl]propyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

### Absolute stereochemistry.



RN 663198-51-4 HCAPLUS

CN 1,4-Piperidinedicarboxylic acid, 1-(1,1-dimethylethyl) .  
4-[[[[phenyl[5,6,7,8-tetrahydro-6-(4-methoxyphenyl)-7-oxo-8-phenylpyrimido[4,5-d]pyrimidin-2-yl]amino]carbonyl]oxy]methyl] ester (9CI)  
(CA INDEX NAME)



=&gt; □

=&gt; d stat que 17 nos

L1 STR  
 L3 69 SEA FILE=REGISTRY SSS FUL L1  
 L4 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L3  
 L6 10 SEA FILE=HCAPLUS ABB=ON PLU=ON "MICHOUUD CHRISTOPHE"/AU  
 L7 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 NOT L4

=&gt;

=&gt;

=&gt; d ibib abs 17 1-9

L7 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:857176 HCAPLUS  
 DOCUMENT NUMBER: 141:350187  
 TITLE: Preparation of pyrimido compounds having  
 antiproliferative activity  
 INVENTOR(S): Chen, Yi; Dermatakis, Apostolos; Liu, Jin-jun; Luk,  
 Kin-chun; Michoud, Christophe; Rossman,  
 Pamela Loreen  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 55 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004204427	A1	20041014	US 2004-817697	20040402
WO 2004089955	A1	20041021	WO 2004-EP3447	20040401
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 2003-461694P	P 20030410

OTHER SOURCE(S) : MARPAT 141:350187  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

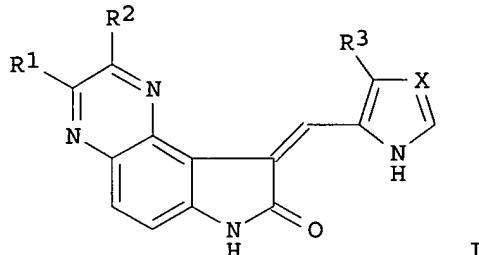
AB Disclosed are methods for preparing novel pyrimido compds. I [R1 = H, (un)substituted-alkyl, -cycloalkyl, -alkynyl, etc.; R2 and R3 independently = H, halo, (un)substituted-alkyl, -alkenyl, etc.; R4-8 independently = H, hydroxyalkyl, alkoxyalkyl, halo, etc.] that are selective inhibitors of both KDR and FGFR kinases. Thus, e.g., II was prep'd via acylation of trans-4-(tert-butyldimethylsilyloxy)cyclohexylamine (preparation given) with phosgene and subsequent cyclization with (2,4-dichloropyrimidin-5-ylmethyl)(4-methoxyphenyl)amine followed by desilylation. The IC50 values for I were as follows: KDR less than 0.50  $\mu$ M; FGFR less than 2  $\mu$ M. These compds. and their pharmaceutically acceptable salts are anti-proliferative agents useful in the treatment or control of solid tumors, in particular breast, colon, lung and prostate tumors. Also disclosed are pharmaceutical compns. containing these compds. and methods of treating cancer.

L7 ANSWER 2 OF 9 HCPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2000:421144 HCPLUS  
DOCUMENT NUMBER: 133:58816  
TITLE: Preparation of 4,5-pyrazinoxindoles as protein kinase inhibitors  
INVENTOR(S): Luk, Kin-chun; Michoud, Christophe  
PATENT ASSIGNEE(S): F. Hoffmann-La Roche Ag, Switz.  
SOURCE: PCT Int. Appl., 33 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000035921	A1	20000622	WO 1999-EP9806	19991211
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2354402	AA	20000622	CA 1999-2354402	19991211
BR 9916324	A	20011002	BR 1999-16324	19991211
TR 200101756	T2	20011022	TR 2001-200101756	19991211
EP 1149105	A1	20011031	EP 1999-963496	19991211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002532503	T2	20021002	JP 2000-588180	19991211
AU 767138	B2	20031030	AU 2000-19773	19991211
US 6221867	B1	20010424	US 1999-464534	19991215
ZA 2001004505	A	20021004	ZA 2001-4505	20010531
PRIORITY APPLN. INFO.:			US 1998-112653P	P 19981217

OTHER SOURCE(S):  
GI

MARPAT 133:58816



AB 4,5-Pyrazinoxindoles I [R1, R2 = H, OR4, COR4, CO2R4, etc.; R3 = OR4, COR4, halo, cyano, etc.; X = N, C], inhibitors or modulators of protein kinases, in particular JNK protein kinases and useful as antiinflammatory agents, were prepared E.g., (Z)-7,9-dihydro-2,3-dimethyl-9-[(3-methoxy-1H-pyrrol-2-yl)methylene]-8H-pyrrolo[3,2-f]quinoxalin-8-one was prepared

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 9 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:421143 HCPLUS

DOCUMENT NUMBER: 133:43513

TITLE: Preparation of 4,5-azolooxindoles as cyclin-dependent kinase inhibitors.

INVENTOR(S): Luk, Kin-chun; Michoud, Christophe; Mischke, Steven Gregory

PATENT ASSIGNEE(S): F. Hoffmann-La Roche Ag, Switz.

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

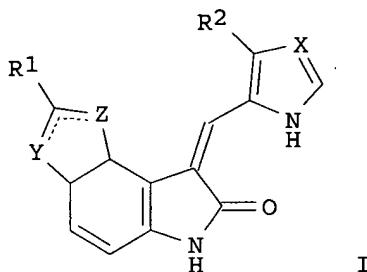
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000035920	A2	20000622	WO 1999-EP9779	19991210
WO 2000035920	A3	20001123		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2354852	AA	20000622	CA 1999-2354852	19991210
BR 9916216	A	20010911	BR 1999-16216	19991210
EP 1149106	A2	20011031	EP 1999-964543	19991210
EP 1149106	B1	20030319		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101745	T2	20020521	TR 2001-200101745	19991210

JP 2002532502	T2	20021002	JP 2000-588179	19991210
AT 234839	E	20030415	AT 1999-964543	19991210
ES 2192878	T3	20031016	ES 1999-964543	19991210
AU 770060	B2	20040212	AU 2000-30372	19991210
US 6153634	A	20001128	US 1999-464507	19991215
US 6197804	B1	20010306	US 2000-571541	20000516
ZA 2001004269	A	20020826	ZA 2001-4269	20010524
PRIORITY APPLN. INFO.:				
			US 1998-112611P	P 19981217
			US 1999-149055P	P 19990816
			WO 1999-EP9779	W 19991210
			US 1999-464507	A3 19991215

OTHER SOURCE(S): MARPAT 133:43513  
GI

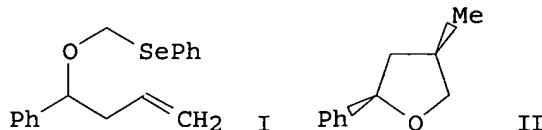


AB Title compds. [I; R1 = H, OR3, COR3, CO2R3, CONR4R5, NR4R5, (substituted) alkyl, cycloalkyl, heterocyclyl, aryl, heteroaryl; R2 = H, OR3, COR3, CO2R3, OCOR3, CONR4R5, halo, cyano, perfluoroalkyl, NR4R5, (substituted) alkyl; R3 = H, (substituted) alkyl, cycloalkyl, heterocyclyl, aryl, heteroaryl; R4, R5 = H, COR6, CO2R6, CONR6R8, (substituted) alkyl, cycloalkyl, heterocyclyl, aryl, heteroaryl; R6 = H, (substituted) alkyl; R8 = H, alkyl; 1 dotted line = double bond; X = N, CR5; Y, Z = N, O, S; with provisos], were prepared Thus, 3-methoxypyrrole-2-carboxaldehyde, 2-phenyl-6,8-dihydrooxazolo[4,5-e]indol-7-one (preparation given) and piperidine were stirred in DMF for 1 h at 90° to give 8.4% (Z)-6,8-dihydro-8-[(3-methoxy-1H-pyrrol-2-yl)methylene]-2-phenyl-7H-pyrrolo[3,2-e]benzoxazol-7-one. Tested I showed antiproliferative activity against MDA-MB435 cells with IC50 <3.5 μM.

L7 ANSWER 4 OF 9 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1994:409781 HCPLUS  
 DOCUMENT NUMBER: 121:9781  
 TITLE: Studies directed toward the synthesis of Strychnos alkaloids: stereoselective synthesis of dehydrotubifoline  
 AUTHOR(S): Michoud, Christophe  
 CORPORATE SOURCE: Ohio State Univ., Columbus, OH, USA  
 SOURCE: (1993) 221 pp. Avail.: Univ. Microfilms Int., Order No. DA9325556  
 From: Diss. Abstr. Int. B 1993, 54(5), 2510  
 DOCUMENT TYPE: Dissertation  
 LANGUAGE: English  
 AB Unavailable

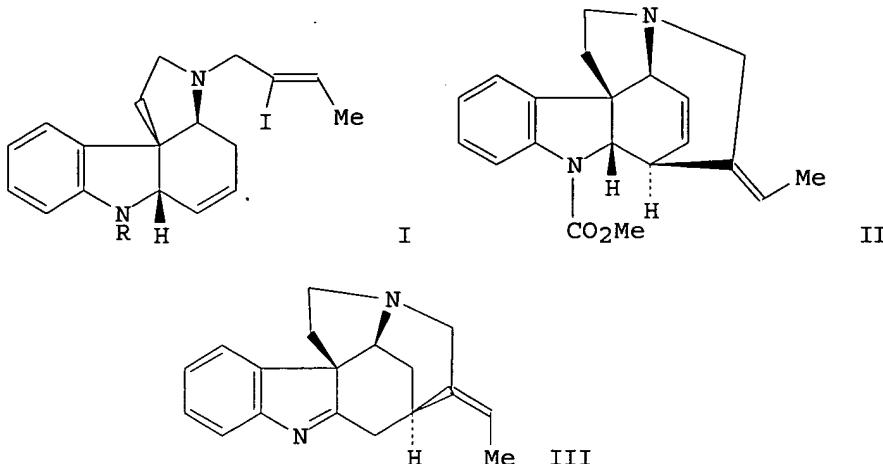
L7 ANSWER 5 OF 9 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1994:163891 HCPLUS  
 DOCUMENT NUMBER: 120:163891

TITLE: Scope of alkoxy methyl radical cyclizations  
 AUTHOR(S): Rawal, Viresh H.; Singh, Surendra P.; Dufour, Claire;  
**Michoud, Christophe**  
 CORPORATE SOURCE: Dep. Chem., Ohio State Univ., Columbus, OH, 43210, USA  
 SOURCE: Journal of Organic Chemistry (1993), 58(27), 7718-27  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 120:163891  
 GI



AB The authors have explored different aspects of the cyclization capability of alkoxy methyl radicals and report here a full account of the authors' studies. The required radicals were generated from (phenylseleno)methyl ethers (e.g., I), which were prepared from homoallylic or bis-homoallylic alcs. by a 2-step process. The alcs. were alkylated with (iodomethyl)tributylstannane. The stannanes were reacted with BuLi, and the resulting  $\alpha$ -alkoxyanions were trapped with diphenyldiselenide to give the (phenylseleno)methyl ethers, which were stable to chromatog. When treated with tributyltin hydride, in the presence of a radical initiator, these precursors undergo a smooth cyclization to substituted THFs and tetrahydropyrans. Formation of the cyclization product is the primary pathway even at relatively high Sn hydride concentration. The diastereoselectivity of this cyclization was comparable to that observed in other radical cyclizations. The cis selectivity in cyclization of I increased gradually (up to 11:1) as the reaction. temperature was lowered. The cyclization can be used for the preparation of bicyclic and tricyclic compds. and can be incorporated in systems capable of tandem cyclizations. For example, the radical cyclization of I gave cis-4-methyl-2-phenyltetrahydrofuran (II) and trans-4-methyl-5-phenyltetrahydrofuran in a 2.6:1 isomer ratio and in 95% overall yield.

L7 ANSWER 6 OF 9 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1993:650221 HCPLUS  
 DOCUMENT NUMBER: 119:250221  
 TITLE: An unexpected Heck reaction. Inversion of olefin geometry facilitated by the apparent intramolecular carbamate chelation of the  $\sigma$ -palladium intermediate  
 AUTHOR(S): Rawal, Viresh H.; **Michoud, Christophe**  
 CORPORATE SOURCE: Dep. Chem., Ohio State Univ., Columbus, OH, 43210, USA  
 SOURCE: Journal of Organic Chemistry (1993), 58(21), 5583-4  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 119:250221  
 GI



AB The presence of a carbamate moiety can dramatically alter the outcome of a Heck cyclization, so that the normal exo-cyclization is followed not by  $\beta$ -elimination, but by cyclopropane formation, rearrangement, and elimination. Thus, subjection of the indoline I ( $R = CO_2Me$ ) to  $Pd(OAc)_2 \cdot K_2CO_3 \cdot Bu_4NCl \cdot DMF$  gave the endo cyclization product II, rather than the expected exo-cyclization product. NOE results revealed that the geometry of the olefin had been inverted during the reaction. A rationale for the formation of this unexpected product is provided. I ( $R = H$ ), on the other hand, gave dehydrotubifoline (III).

L7 ANSWER 7 OF 9 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:255173 HCPLUS

DOCUMENT NUMBER: 118:255173

TITLE: General strategy for the stereocontrolled synthesis of Strychnos alkaloids: a concise synthesis of . (+)-dehydrotubifoline

AUTHOR(S) : Rawal, Viresh H.; Michoud, Christophe;  
Monestel, Robert

CORPORATE SOURCE: Dep. Chem., Ohio State Univ., Columbus, OH, 43210, USA  
SOURCE: *Journal of the American Chemical Society* (1982)

SOURCE: JOURNAL OF the American Chemical Society (1993), 115(7), 3030-1  
SOPEN, INSIGHT, ISSN 0002-7863

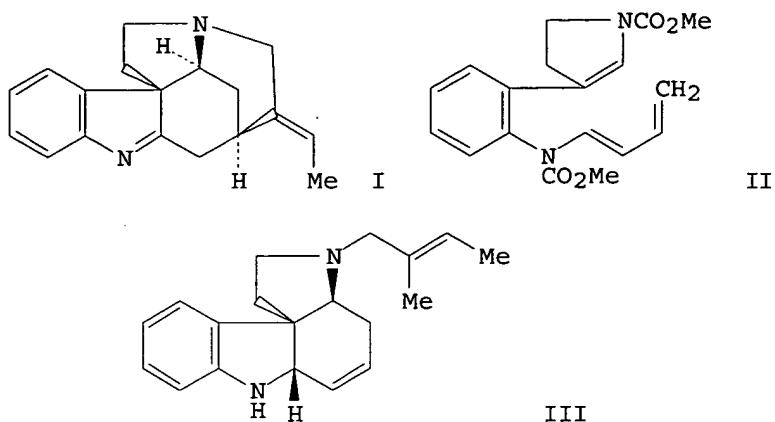
DOCUMENT TYPE: **Journal Article** CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal  
LANGUAGE: English

LANGUAGE: English  
OTHER SOURCE(S): GAGBEMST 112, 255

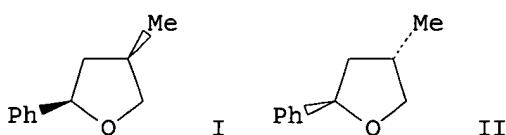
OTHER SOURCE(S): CASREACT  
SI

G1



AB A general strategy was developed for the synthesis Strychnos alkaloids having the strychnan skeleton, characterized a pentacyclic framework in which rings C and E are joined by a bridged juncture and ring E bears an exocyclic olefin of defined geometry. The strategy is successfully demonstrated through the synthesis of ( $\pm$ )-dehydrotubifoline (I). The synthesis, which calls for the formation of 5 carbon-carbon bonds and 4 rings, was executed in 10 steps, with complete stereocontrol and high overall yield (>25%). Com. available 2-nitrophenylacetonitrile was converted to a  $\beta$ -aryl pyrroline via a cyclopropyliminium ion rearrangement, carried out under newly-developed, mild conditions. A highly stereoselective intramol. Diels-Alder reaction of II gave a tetracycle that should prove to be a valuable common intermediate to other Strychnos alkaloids. Alkylation with the requisite vinyl iodide gave the penultimate compound The key step, an intramol. Heck cyclization of III, presumably generates an enamine which tautomerizes to the desired imine product.

L7 ANSWER 8 OF 9 HCPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1991:535833 HCPLUS  
DOCUMENT NUMBER: 115:135833  
TITLE: Cyclization of alkoxyethyl radicals  
AUTHOR(S): Rawal, Viresh H.; Singh, Surendra P.; Dufour, Claire;  
Michoud, Christophe  
CORPORATE SOURCE: Dep. Chem., Ohio State Univ., Columbus, OH, 43210, USA  
SOURCE: Journal of Organic Chemistry (1991), 56(18), 5245-7  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 115:135833  
GI



AB Alkoxy methyl radicals, generated conveniently from selenophenyl precursors,

cyclize to afford substituted tetrahydrofurans and tetrahydropyrans in excellent yield. Under standard conditions (*n*-Bu<sub>3</sub>SnH, AIBN, benzene) PhSeCH<sub>2</sub>OCHPhCH<sub>2</sub>CH:CH<sub>2</sub> cyclized to a 2.6:1 mixture of the *cis* and *trans* diastereomers I and II with essentially none of the uncyclized, reduced starting material. The cyclized product predominated even at 1.16 M tin hydride concentration. The *cis/trans* ratio gradually increased to 11:1 when the reaction temperature was lowered to -70°C (bath). The THF forming reactions were in general extremely efficient and gave essentially none of the reduction products. The cyclization of 4-Me substituted 2-oxahex-5-enyl radicals proceeded with 4.3:1 *trans/cis* stereoselectivity. The cyclization leading to 6-membered rings was best accomplished by slowly adding the tin hydride with a syringe pump. The selectivity observed in these cyclizations can be rationalized by assuming the cyclization taking place via a chain conformation, in which the alkyl groups and the alkene are in an equatorial orientation. The alkoxyethyl radical cyclization can also be used for the synthesis of bicyclic systems.

L7 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:443423 HCAPLUS

DOCUMENT NUMBER: 115:43423

TITLE: A general solution to the synthesis of 2-azabicyclo[3.3.1]nonane unit of Strychnos alkaloids

AUTHOR(S): Rawal, Viresh H.; Michoud, Christophe

CORPORATE SOURCE: Dep. Chem., Ohio State Univ., Columbus, OH, 43210, USA

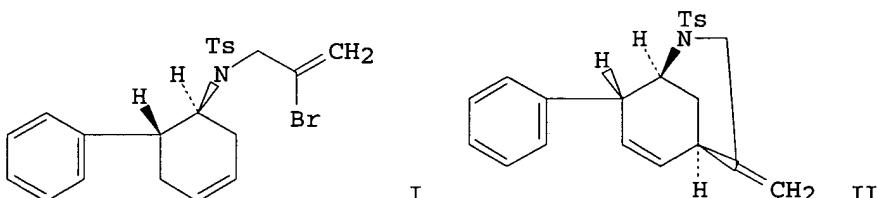
SOURCE: Tetrahedron Letters (1991), 32(14), 1695-8

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB The characteristic 2-azabicyclo[3.3.1]nonane substructure of Strychnos alkaloids can be constructed rapidly and stereospecifically using an intramol. Heck reaction. E.g., intramol. Heck reaction of vinyl bromide I (Ts = *p*-tosyl) gave 85% azabicyclononane II.

```
=> => d stat que nos
L1      STR
L3      69 SEA FILE=REGISTRY SSS FUL L1
L4      3 SEA FILE=HCAPLUS ABB=ON PLU=ON L3
L5      96 SEA FILE=HCAPLUS ABB=ON PLU=ON ("DANIEWSKI A"/AU OR "DANIEWSKI A R"/AU OR "DANIEWSKI A ROBERT"/AU OR "DANIEWSKI ANDREJ R"/AU OR "DANIEWSKI ANDRZEJ"/AU OR "DANIEWSKI ANDRZEJ R"/AU OR "DANIEWSKI ANDRZEJ ROBERT"/AU)
L6      10 SEA FILE=HCAPLUS ABB=ON PLU=ON "MICHOUDE CHRISTOPHE"/AU
L7      9 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 NOT L4
L8      1527 SEA FILE=HCAPLUS ABB=ON PLU=ON HARRIS W?/AU
L9      837 SEA FILE=HCAPLUS ABB=ON PLU=ON LIU E?/AU
L10     25588 SEA FILE=HCAPLUS ABB=ON PLU=ON LIU J?/AU
```

L11	226	SEA FILE=HCAPLUS ABB=ON	PLU=ON	LUK K?/AU
L12	31754	SEA FILE=HCAPLUS ABB=ON	PLU=ON	CHEN Y?/AU
L13	1	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L5 AND L8 AND L9 AND L10 AND L11 AND L12
L14	0	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L13 NOT (L7 OR L4)
L15	0	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L5 AND (L8 OR L9 OR L10 OR L11 OR L12)) NOT (L7 OR L4)
L16	4	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L8 AND (L9 OR L10 OR L11 OR L12)) NOT (L7 OR L4)
L17	12	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L9 AND (L10 OR L11 OR L12)) NOT (L7 OR L4 OR L16)
L18	7	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L10 AND L11) NOT (L7 OR L4 OR L16 OR L17)
L20	35	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L11 AND L12) NOT (L7 OR L4 OR L16 OR L17 OR L18)
L21	58	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L14 OR L15 OR L16 OR L17 OR L18 OR L20

=>

=>

=> d ibib abs l21 1-58

L21 ANSWER 1 OF 58 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:385940 HCAPLUS  
 TITLE: Systematic deletion analysis of fission yeast protein  
 kinases  
 AUTHOR(S): Bimbo, Andrea; Jia, Yonghui; Poh, Siew Lay; Karuturi,  
 R. Krishna Murthy; den Elzen, Nicole; Peng, Xu; Zheng,  
 Liling; O'Connell, Matthew; Liu, Edison T.;  
 Balasubramanian, Mohan K.; Liu, Jianhua  
 CORPORATE SOURCE: Temasek Life Sciences Laboratory, 1 Research Link,  
 NUS, Singapore, 117604, Singapore  
 SOURCE: Eukaryotic Cell (2005), 4(4), 799-813  
 CODEN: ECUEA2; ISSN: 1535-9778  
 PUBLISHER: American Society for Microbiology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Eukaryotic protein kinases are key mols. mediating signal transduction  
 that play a pivotal role in the regulation of various biol. processes,  
 including cell cycle progression, cellular morphogenesis, development, and  
 cellular response to environmental changes. A total of 106 eukaryotic  
 protein kinase catalytic domain-containing proteins have been found in the  
 entire fission yeast genome, 44% (or 64%) of which possess orthologues (or  
 nearest homologues) in humans, based on sequence similarity within  
 catalytic domains. Systematic deletion anal. of all putative protein  
 kinase-encoding genes have revealed that 17 out of 106 were essential for  
 viability, including three previously uncharacterized putative protein  
 kinases. Although the remaining 89 protein kinase mutants were able to  
 form colonies under optimal growth conditions, 46% of the mutants  
 exhibited hypersensitivity to at least 1 of the 17 different stress  
 factors tested. Phenotypic assessment of these mutants allowed us to  
 arrange kinases into functional groups. Based on the results of this  
 assay, we propose also the existence of four major signaling pathways that  
 are involved in the response to 17 stresses tested. Microarray anal.  
 demonstrated a significant correlation between the expression signature  
 and growth phenotype of kinase mutants tested. Our complete microarray  
 data sets are available at <http://giscompute.gis.star.edu.sg/.aprx.gisljh/kinome>.

L21 ANSWER 2 OF 58 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:296295 HCAPLUS  
 TITLE: HyperCP: A high-rate spectrometer for the study of charged hyperon and kaon decays  
 AUTHOR(S): Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W.-S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Fuzesy, R.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Jones, T. D.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K.-B.; Nelson, K. S.; Park, H. K.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Turko, B.; Volk, J.; White, C. G.; White, S. L.; Zyla, P.  
 CORPORATE SOURCE: Illinois Institute of Technology, Chicago, IL, 60616, USA  
 SOURCE: Nuclear Instruments & Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors, and Associated Equipment (2005), 541(3), 516-565  
 CODEN: NIMAER; ISSN: 0168-9002  
 PUBLISHER: Elsevier B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The HyperCP experiment (Fermilab E871) was designed to search for rare phenomena in the decays of charged strange particles, in particular CP violation in  $\Xi$  and  $\Lambda$  hyperon decays with a sensitivity of  $10^{-4}$ . Intense charged secondary beams were produced by 800 GeV/c protons and momentum selected by a magnetic channel. Decay products were detected in a large-acceptance, high-rate magnetic spectrometer using multiwire proportional chambers, trigger hodoscopes, a hadronic calorimeter, and a muon-detection system. Nearly identical acceptances and efficiencies for hyperons and antihyperons decaying within an evacuated volume were achieved by reversing the polarities of the channel and spectrometer magnets. A high-rate data-acquisition system enabled 231 billion events to be recorded in 12 mo of data-taking.

L21 ANSWER 3 OF 58 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:290852 HCAPLUS  
 TITLE: Measurement of the  $\alpha$  asymmetry parameter for the  $\Omega \rightarrow \Lambda K^-$  Decay  
 AUTHOR(S): Chen, Y. C.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Park, H. K.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.; White, C. G.; White, S. L.; Zyla, P.  
 CORPORATE SOURCE: HyperCP Collaboration, Institute of Physics, Academia Sinica, Taipei, 11529, Taiwan  
 SOURCE: Physical Review D: Particles and Fields (2005), 71(5), 051102/1-051102/5  
 CODEN: PRVDAQ; ISSN: 0556-2821  
 PUBLISHER: American Physical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB We have measured the  $\alpha$  parameter of the  $\Omega \rightarrow \Lambda K^-$  decay using data collected with the HyperCP spectrometer during the 1997

fixed-target run at Fermilab. Analyzing a sample of  $0.96 \pm 106$   $\Omega \rightarrow \Lambda K^-$ ,  $\Lambda \rightarrow p \pi^-$  decays, we obtain  
 $\alpha \Omega \alpha \Lambda = [1.33 \pm 0.33 \text{ (stat)} \pm 0.52 \text{ (syst)}] \pm 10^-2$ .  
 2. With the accepted value of  $\alpha \Lambda$ ,  $\alpha \Omega$  is found to be  $[2.07 \pm 0.51 \text{ (stat)} \pm 0.81 \text{ (syst)}] \pm 10^-2$ .

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:288313 HCPLUS  
 TITLE: SARS transmission pattern in Singapore reassessed by Viral sequence variation analysis  
 AUTHOR(S): Liu, Jianjun; Lim, Siew Lan; Ruan, Yijun; Ling, Ai Ee; Ng, Lisa F. P.; Drosten, Christian; Liu, Edison T.; Stanton, Lawrence W.; Hibberd, Martin L.  
 CORPORATE SOURCE: Genome Institute of Singapore, Singapore, Singapore  
 SOURCE: PLoS Medicine (2005), 2(2), 162-168  
 CODEN: PMLEAC; ISSN: 1549-1277  
 URL: [http://medicine.plosjournals.org/archive/1549-1676/2/2/pdf/10.1371\\_journal.pmed.0020043-L.pdf](http://medicine.plosjournals.org/archive/1549-1676/2/2/pdf/10.1371_journal.pmed.0020043-L.pdf)  
 PUBLISHER: Public Library of Science  
 DOCUMENT TYPE: Journal; (online computer file)  
 LANGUAGE: English  
 AB Background Epidemiol. investigations of infectious disease are mainly dependent on indirect contact information and only occasionally assisted by characterization of pathogen sequence variation from clin. isolates. Direct sequence anal. of the pathogen, particularly at a population level, is generally thought to be too cumbersome, tech. difficult, and expensive. We present here a novel application of mass spectrometry (MS)-based technol. in characterizing viral sequence variations that overcomes these problems, and we apply it retrospectively to the severe acute respiratory syndrome (SARS) outbreak in Singapore. Methods and Findings The success rate of the MS-based anal. for detecting SARS coronavirus (SARS-CoV) sequence variations was determined to be 95% with 75 copies of viral RNA per reaction, which is sufficient to directly analyze both clin. and cultured samples. Anal. of 13 SARS-CoV isolates from the different stages of the Singapore outbreak identified nine sequence variations that could define the mol. relationship between them and pointed to a new, previously unidentified, primary route of introduction of SARS-CoV into the Singapore population. Our direct determination of viral sequence variation from a clin. sample also clarified an unresolved epidemiol. link regarding the acquisition of SARS in a German patient. We were also able to detect heterogeneous viral sequences in primary lung tissues, suggesting a possible coevolution of quasispecies of virus within a single host. Conclusion This study has further demonstrated the importance of improving clin. and epidemiol. studies of pathogen transmission through the use of genetic anal. and has revealed the MS-based anal. to be a sensitive and accurate method for characterizing SARS-CoV genetic variations in clin. samples. We suggest that this approach should be used routinely during outbreaks of a wide variety of agents, in order to allow the most effective control.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 5 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:265274 HCPLUS  
 TITLE: Search for  $\Delta S = 2$  nonleptonic hyperon decays  
 AUTHOR(S): White, C. G.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.;

Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Park, H. K.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.; White, S. L.; Zyla, P.

CORPORATE SOURCE: HyperCP Collaboration, Illinois Institute of Technology, Chicago, IL, 60616, USA

SOURCE: Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2005) 1-4, arXiv:hep-ex/0503036, 21 Mar 2005

CODEN: LNHEFS

URL: <http://xxx.lanl.gov/pdf/hep-ex/0503036>

PUBLISHER: Los Alamos National Laboratory

DOCUMENT TYPE: Preprint

LANGUAGE: English

AB A sensitive search for the rare decays  $\Omega^- \rightarrow \Lambda\pi^-$  and  $\Xi^0 \rightarrow p\pi^-$  has been performed using data from the 1997 run of the HyperCP (Fermilab E871) experiment. Limits on other such processes do not exclude the possibility of observable rates for  $|\Delta S| = 2$  nonleptonic hyperon decays, provided the decays occur through parity-odd operators. We obtain the branching-fraction limits  $\text{.SCRIPTB.}(\Omega^- \rightarrow \Lambda\pi^-) < 2.9 + 10^{-6}$  and  $\text{.SCRIPTB.}(\Xi^0 \rightarrow p\pi^-) < 8.2 + 10^{-6}$ , both at 90% confidence level.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 6 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:257945 HCPLUS

TITLE: Search for  $\Delta S=2$  Nonleptonic Hyperon Decays

AUTHOR(S): White, C. G.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Park, H. K.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.; White, S. L.; Zyla, P.

CORPORATE SOURCE: HyperCP Collaboration, Institute of Physics, Academica Sinica, Taipei, 11529, Taiwan

SOURCE: Physical Review Letters (2005), 94(10), 101804/1-101804/4

CODEN: PRLTAO; ISSN: 0031-9007

PUBLISHER: American Physical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A sensitive search for the rare decays  $\Omega \rightarrow \Lambda\pi^-$  and  $\Xi^0 \rightarrow p\pi^-$  has been performed using data from the 1997 run of the HyperCP (Fermilab E871) experiment. Limits on other such processes do not exclude the possibility of observable rates for  $|\Delta S|=2$  nonleptonic hyperon decays, provided the decays occur through parity-odd operators. We obtain the branching-fraction limits  $B(\Omega \rightarrow \Lambda\pi^-) < 2.9 + 10^{-6}$  and  $B(\Xi^0 \rightarrow p\pi^-) < 8.2 + 10^{-6}$ , both at 90% confidence level.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 7 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:220832 HCPLUS  
 TITLE: Identification of cell cycle-regulated genes in fission yeast  
 AUTHOR(S): Peng, Xu; Karuturi, R. Krishna Murthy; Miller, Lance D.; Lin, Kui; Jia, Yonghui; Kondu, Pinar; Wang, Long; Wong, Lim-Soon; Liu, Edison T.; Balasubramanian, Mohan K.; Liu, Jianhua  
 CORPORATE SOURCE: Genome Institute of Singapore, Singapore, 138672, Singapore  
 SOURCE: Molecular Biology of the Cell (2005), 16(3), 1026-1042  
 CODEN: MBCEEV; ISSN: 1059-1524  
 PUBLISHER: American Society for Cell Biology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Cell cycle progression is both regulated and accompanied by periodic changes in the expression levels of a large number of genes. To investigate cell cycle-regulated transcriptional programs in the fission yeast *Schizosaccharomyces pombe*, we developed a whole-genome oligonucleotide-based DNA microarray. Microarray anal. of both wild-type and cdc25 mutant cell cultures was performed to identify transcripts whose levels oscillated during the cell cycle. Using an unsupervised algorithm, we identified 747 genes that met the criteria for cell cycle-regulated expression. Peaks of gene expression were found to be distributed throughout the entire cell cycle. Furthermore, we found that four promoter motifs exhibited strong association with cell cycle phase-specific expression. Examination of the regulation of MCB motif-containing genes through the perturbation of DNA synthesis control/MCB-binding factor (DSC/MBF)-mediated transcription in arrested synchronous cdc10 mutant cell cultures revealed a subset of functional targets of the DSC/MBF transcription factor complex, as well as certain gene promoter requirements. Finally, we compared our data with those for the budding yeast *Saccharomyces cerevisiae* and found apprx.140 genes that are cell cycle regulated in both yeasts, suggesting that these genes may play an evolutionarily conserved role in regulation of cell cycle-specific processes.  
 REFERENCE COUNT: 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 8 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:191457 HCPLUS  
 TITLE: Structure-activity relationship of C4-substituted pyrimidopyrimidines; Dual KDR/FGFR tyrosine kinase inhibitors  
 AUTHOR(S): Rossman, P.; Luk, K.; Chen, Y.; Garafalo, L.; Graves, B.; Jackson, N.; Kabat, M.; Konzelmann, F.; Liu, J.-J.; Lukacs, C.; McDermott, L.; Michoud, C.; Portland, L.; Roberts, J.; Schutt, A.; Simcox, M.; So, S.-S.; Tamborini, B.; Yang, H.  
 CORPORATE SOURCE: Discovery Chemistry, Hoffmann-La Roche Inc, Nutley, NJ, 07110, USA  
 SOURCE: Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, United States, March 13-17, 2005 (2005), MEDI-124. American Chemical Society: Washington, D. C.  
 CODEN: 69GQMP  
 DOCUMENT TYPE: Conference; Meeting Abstract  
 LANGUAGE: English

AB The pyrimidopyrimidine moiety represents a core structure that is a useful template for the design of a variety of tyrosine kinase inhibitors. From high throughput screening, a pyrimidopyrimidine analog was identified as a dual inhibitor of the growth factor receptors KDR and FGFR-1. The crystal structure of the src-family tyrosine kinase LCK with a closely related analog bound was determined, elucidating the binding mode of the pyrimidopyrimidines. Modeling of the pyrimidopyrimidine into the ATP binding pocket of KDR led to a simplified binding model which guided the investigation of the structure activity relationships at three positions (N1, N3 and C7). Modeling also revealed an addnl. small pocket accessible from C4 of the pyrimidopyrimidine core. A series of analogs were synthesized to study the structure activity relationship of substituents at this site. The size limitation of the pocket as well as the required configuration of the substituent at C4, as defined by activity in the in vitro kinase assays and in the growth-factor stimulated HUVEC proliferation assays, will be presented.

L21 ANSWER 9 OF 58 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:178708 HCAPLUS  
 TITLE: Measurement of the  $\alpha$  asymmetry parameter for the  $\Omega^- \rightarrow \Lambda K^-$  decay  
 AUTHOR(S): Chen, Y. C.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Park, H. K.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.; White, C. G.; White, S. L.; Zyla, P.  
 CORPORATE SOURCE: The HyperCP Collaboration, Institute of Physics, Academia Sinica, Taipei, 11529, Taiwan  
 SOURCE: Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2005) 1-5, arXiv:hep-ex/0502043, 25 Feb 2005  
 CODEN: LNHEFS  
 URL: <http://xxx.lanl.gov/pdf/hep-ex/0502043>  
 PUBLISHER: Los Alamos National Laboratory  
 DOCUMENT TYPE: Preprint  
 LANGUAGE: English  
 AB We have measured the  $\alpha$  parameter of the  $\Omega^- \rightarrow \Lambda K^-$  decay using data collected with the HyperCP spectrometer during the 1997 fixed-target run at Fermilab. Analyzing a sample of 0.96 million  $\Omega^- \rightarrow \Lambda K^-$ ,  $\Lambda \rightarrow p\pi^-$  decays, we obtain  
 $\alpha\Omega\alpha\Lambda = [1.33 \pm 0.33 \text{ (stat)} \pm 0.52 \text{ (syst)}]$   
 $+ 10^{-2}$ . With the accepted value of  $\alpha\Lambda$ ,  $\alpha\Omega$  is found to be  $[2.07 \pm 0.51 \text{ (stat)} \pm 0.81 \text{ (syst)}] + 10^{-2}$ .  
 REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 10 OF 58 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:164564 HCAPLUS  
 TITLE: Correlation between HBV infection and expression of hTERT gene in human hepatocellular carcinoma  
 AUTHOR(S): Zhou, Xu; Yi, Jilin; Guo, Yueqing; Liu, Enyu; Li, Xingrui; Liu, Jinwen; Yang, Zhifang  
 CORPORATE SOURCE: Tongji Medical College, Huazhong University of Science and Technology, Wuhan, Hubei Province, 430030, Peop. Rep. China  
 SOURCE: Zhongliu Fangzhi Zazhi (2004), 11(12), 1243-1246

CODEN: ZFZHBH; ISSN: 1009-4571

PUBLISHER: Zhongliu Fangzhi Zazhi Bianji Weiyuanhui

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB To investigate the different expression of human telomerase reverse transcriptase (hTERT) gene between HBsAg pos. human hepatocellular carcinoma (HCC) and HBsAg neg. HCC and to explore the relationship between hepatitis B virus (HBV) infection and hTERT gene expression in HCC, the expression of hTERT protein in HBsAg pos. HCC from 53 cases and HBsAg neg. HCC from 20 cases was detected by immunohistochem. (SP method), and hTERT mRNA expression was analyzed by reverse transcription polymerase chain reaction (RT-PCR). T-test, Chi-square test and Cochran-Armitage trend test were used to estimate whether there was an interrelation between HBsAg and hTERT gene in HCC. The results showed that the expression of hTERT protein was mostly located in liver cancer cell plasmas, and occasionally located in nucleus. The pos. rates of hTERT protein and hTERT mRNA in HBsAg pos. HCC were 48/53 and 46/53 resp., which were much higher than those in the HBsAg neg. HCC (12/20 and 11/20, resp.). HBsAg is related to hTERT gene expression in human HCC. hTERT gene activated by efficacious ingredient of HBV may play an important role in hepatocellular transformation and carcinogenesis.

L21 ANSWER 11 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:69033 HCPLUS

DOCUMENT NUMBER: 142:324379

TITLE: Evidence for the decay  $\Sigma^+ \rightarrow p\mu^+\mu^-$ 

AUTHOR(S): Park, H. K.; Burnstein, R. A.; Chakravorty, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Fu, Y.; Gidal, G.; Gustafson, H. R.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Jones, T.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Volk, J.; White, C. G.; White, S. L.; Zyla, P.

CORPORATE SOURCE: HyperCP Collaboration, Institute of Physics, Academia Sinica, Taipei, Taiwan, 11529, Peop. Rep. China

SOURCE: Physical Review Letters (2005), 94(2), 021801/1-021801/4

CODEN: PRLTAO; ISSN: 0031-9007

PUBLISHER: American Physical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We report the first evidence for the decay  $\Sigma^+ \rightarrow p\mu^+\mu^-$  from data taken by the HyperCP (E871) experiment at Fermilab. Based on three observed events, the branching ratio is  $B(\Sigma^+ \rightarrow p\mu^+\mu^-) = [8.6 \pm 6.6 \pm 5.4 \text{ (stat)} \pm 5.5 \text{ (syst)}] \pm 10^{-8}$ . The narrow range of dimuon masses may indicate that the decay proceeds via a neutral intermediate state,  $\Sigma^+ \rightarrow pP_0, P_0 \rightarrow \mu^+\mu^-$  with a  $P_0$  mass of  $214.3 \pm 0.5$  MeV/c<sup>2</sup> and branching ratio  $B(\Sigma^+ \rightarrow pP_0, P_0 \rightarrow \mu^+\mu^-) = [3.1 \pm 2.4 \pm 1.9 \text{ (stat)} \pm 1.5 \text{ (syst)}] \pm 10^{-8}$ .

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 12 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:29983 HCPLUS

TITLE: Evidence for the decay  $\Sigma^+ \rightarrow p\mu^+\mu^-$ 

AUTHOR(S): Park, H. K.; Burnstein, R. A.; Chakravorty, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Fu, Y.; Gidal, G.,

Gustafson, H. R.; Holmstrom, T.; Huang, M.; James, C.;  
 Jenkins, C. M.; Jones, T.; Kaplan, D. M.; Lederman, L.  
 M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L. C.;  
 Luebke, W.; Luk, K. B.; Nelson, K. S.;  
 Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Volk, J.;  
 White, C. G.; White, S. L.; Zyla, P.  
**CORPORATE SOURCE:** HyperCP Collaboration, University of Michigan, Ann Arbor, MI, 48109, USA  
**SOURCE:** Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2005) 1-4, arXiv:hep-ex/0501014, 7 Jan 2005  
**CODEN:** LNHEFS  
**URL:** <http://xxx.lanl.gov/pdf/hep-ex/0501014>  
**PUBLISHER:** Los Alamos National Laboratory  
**DOCUMENT TYPE:** Preprint  
**LANGUAGE:** English  
**AB** We report the first evidence for the decay  $\Sigma^+ \rightarrow p\mu^+\mu^-$  from data taken by the HyperCP (E871) experiment at Fermilab. Based on three observed events, the branching ratio is  $\Sigma^+ \rightarrow p\mu^+\mu^- = [8.6^{+6.6-5.4}(\text{stat}) \pm 5.5(\text{syst})] \pm 10.8$ . The narrow range of dimuon masses and larger-than-expected branching ratio may indicate that the decay proceeds via a neutral intermediate state,  $\Sigma^+ \rightarrow pP_0$ ,  $P_0 \rightarrow \mu^+\mu^-$  with a  $P_0$  mass of  $214.3 \pm 0.5$  MeV/c<sup>2</sup> and branching ratio  $\Sigma^+ \rightarrow pP_0, P_0 \rightarrow \mu^+\mu^- = [3.1^{+2.4-1.9}(\text{stat}) \pm 1.5(\text{syst})] \pm 10.8$ .  
**REFERENCE COUNT:** 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 13 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
**ACCESSION NUMBER:** 2005:15709 HCPLUS  
**DOCUMENT NUMBER:** 142:103466  
**TITLE:** Chip package substrate having soft circuit board and method for fabricating the same  
**INVENTOR(S):** Chen, Huei-Jen; Liu, Evan; Chen, Yvon  
**PATENT ASSIGNEE(S):** Taiwan  
**SOURCE:** U.S. Pat. Appl. Publ., 11 pp.  
**CODEN:** USXXCO  
**DOCUMENT TYPE:** Patent  
**LANGUAGE:** English  
**FAMILY ACC. NUM. COUNT:** 1  
**PATENT INFORMATION:**

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005001278	A1	20050106	US 2003-655223	20030905
PRIORITY APPLN. INFO.:			TW 2003-92118123	A 20030702

**AB** A chip package substrate having a soft circuit board as a multi-layer soft and hard composite PCB, a plurality of conducting components and a plurality of conducting holes. The conducting holes are formed in the multi-layer soft and hard composite PCB. The conducting components are electroplated on the inner edges of the conducting holes on the multi-layer soft and hard composite PCB. An image-sensing chip can thus be packaged on the chip package substrate with the soft circuit board used as external signal connection lines, thereby saving the manufacturing cost and increasing the yield thereof.

L21 ANSWER 14 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
**ACCESSION NUMBER:** 2005:7541 HCPLUS  
**DOCUMENT NUMBER:** 142:268013

TITLE: Search for CP Violation in Charged- $\Xi$  and  $\Lambda$  Hyperon Decays  
 AUTHOR(S): Holmstrom, T.; Leros, N.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Fu, Y.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Huang, M.; James, C.; Jenkins, C. M.; Jones, T.; Kaplan, D. M.; Lederman, L. M.; Longo, M. J.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Park, H. K.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.; White, C. G.; White, S. L.; Zyla, P.  
 CORPORATE SOURCE: HyperCP Collaboration, Institute of Physics, Academia Sinica, Taipei, Taichung, 11529, Taiwan  
 SOURCE: Physical Review Letters (2004), 93(26, Pt. 1), 262001/1-262001/4  
 CODEN: PRLTAO; ISSN: 0031-9007  
 PUBLISHER: American Physical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB We have compared the p and -p angular distributions in 117+106  $\Xi^- \rightarrow \Lambda\pi^- \rightarrow p\pi-\pi-$  and 41+106  $-\Xi^+ \rightarrow -\Lambda\pi^+ \rightarrow p-\pi+\pi^+$  decays using a subset of the data from the HyperCP experiment (E871) at Fermilab. We find no evidence of CP violation, with the direct-CP-violating parameter  $A_{\Xi\Lambda}$   $(\alpha_{\Xi\Lambda} - \alpha_{\Xi\Lambda}) / (\alpha_{\Xi\Lambda})$   $= [0.0 \pm 5.1 \text{ (stat)} \pm 4.4 \text{ (syst)}] \pm 10^{-4}$ .  
 REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
  
 L21 ANSWER 15 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:5614 HCPLUS  
 DOCUMENT NUMBER: 142:247242  
 TITLE: High statistics search for the  $\Theta^+(1.54)$  pentaquark state  
 AUTHOR(S): Longo, M. J.; Burnstein, R. A.; Chakravorty, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Fu, Y.; Gidal, G.; Gustafson, H. R.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Jones, T.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Park, H. K.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Volk, J.; White, C. G.; White, S.; Zyla, P.  
 CORPORATE SOURCE: HyperCP Collaboration, Institute of Physics, Academia Sinica, Taipei, Taichung, 11529, Taiwan  
 SOURCE: Physical Review D: Particles and Fields (2004), 70(11), 111101/1-111101/4  
 CODEN: PRVDAQ; ISSN: 0556-2821  
 PUBLISHER: American Physical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB We have searched for  $\Theta^+(1.54) \rightarrow K0p$  decays using data from the 1999 run of the HyperCP experiment at Fermilab. We see no evidence for a narrow peak in the  $K0p$  mass distribution near 1.54 GeV/c among 106,000  $K0p$  candidates, and obtained an upper limit for the fraction of  $\Theta^+(1.54)$  to  $K0p$  candidates of <0.3% at 90% confidence.  
 REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 16 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:1101023 HCPLUS  
 DOCUMENT NUMBER: 142:380407  
 TITLE: Search for CP violation in charged- $\Xi$  and  $\Lambda$   
 hyperon decays  
 AUTHOR(S): Holmstrom, T.; Leros, N.; Burnstein, R. A.;  
 Chakravorty, A.; Chan, A.; Chen, Y. C.;  
 Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.;  
 Felix, J.; Fu, Y.; Gidal, G.; Gu, P.; Gustafson, H. R.;  
 Ho, C.; Huang, M.; James, C.; Jenkins, C. M.;  
 Jones, T.; Kaplan, D. M.; Lederman, L. M.; Longo, M. J.;  
 Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.;  
 Nelson, K. S.; Park, H. K.; Perroud, J.-P.;  
 Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.;  
 White, C. G.; White, S. L.; Zyla, P.  
 CORPORATE SOURCE: HyperCP Collaboration, University of Virginia,  
 Charlottesville, VA, 22904, USA  
 SOURCE: Los Alamos National Laboratory, Preprint Archive, High  
 Energy Physics--Experiment (2004) 1-4,  
 arXiv:hep-ex/0412038, 13 Dec 2004  
 CODEN: LNHEFS  
 URL: <http://xxx.lanl.gov/pdf/hep-ex/0412038>  
 PUBLISHER: Los Alamos National Laboratory  
 DOCUMENT TYPE: Preprint  
 LANGUAGE: English  
 AB We compared the  $p$  and  $.hivin.p$  angular distributions in 117 million  $\Xi^- \rightarrow \Lambda\pi^- \rightarrow p\pi-\pi-$  and 41 million  $.hivin.\Xi^+$   $\rightarrow .hivin.\Lambda\pi^+ \rightarrow .hivin.p\pi+\pi+$  decays using a subset of the data from the HyperCP experiment (E871) at Fermilab. We found no evidence of CP violation, with the direct-CP-violating parameter  $A_{\Xi\Lambda} = (\alpha_{\Xi\Lambda\Lambda} - \alpha_{\Xi\Lambda\Lambda}) / (\alpha_{\Xi\Lambda\Lambda} + \alpha_{\Xi\Lambda\Lambda}) = [0.0 \pm 5.1(\text{stat}) \pm 4.4(\text{syst})] \pm 10^{-4}$ .  
 REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 17 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:839497 HCPLUS  
 DOCUMENT NUMBER: 142:343065  
 TITLE: High statistics search for the  $\Theta^+(1.54)$  pentaquark  
 AUTHOR(S): Longo, M. J.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Fu, Y.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Jones, T.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Park, H. K.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.; White, C.; White, S.; Zyla, P.  
 CORPORATE SOURCE: HyperCP Collaboration, University of Michigan, Ann Arbor, MI, 48109, USA  
 SOURCE: Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2004) 1-4, arXiv:hep-ex/0410027, 8 Oct 2004  
 CODEN: LNHEFS  
 URL: <http://xxx.lanl.gov/pdf/hep-ex/0410027>

PUBLISHER: Los Alamos National Laboratory

DOCUMENT TYPE: Preprint

LANGUAGE: English

AB We have searched for  $\Theta^+(1.54) \rightarrow Ks0p$  decays using data from the 1999 run of the HyperCP experiment at Fermilab. We see no evidence for a narrow peak in the  $Ks0p$  mass distribution near 1.54 GeV/c among 106 000  $Ks0p$  candidates, and obtain an upper limit for the fraction of  $\Theta^+(1.54)$  to  $Ks0p$  candidates of <0.25% at 90% confidence.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 18 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:822722 HCPLUS

DOCUMENT NUMBER: 141:311854

TITLE: Mutational dynamics of the SARS coronavirus in cell culture and human populations isolated in 2003

AUTHOR(S): Vega, Vinsensius B.; Ruan, Yijun; Liu, Jianjun; Lee, Wah Heng; Wei, Chia Lin; Se-Thoe, Su Yun; Tang, Kin Fai; Zhang, Tao; Kolatkar, Prasanna R.; Ooi, Eng Eong; Ling, Ai Ee; Stanton, Lawrence W.; Long, Philip M.; Liu, Edison T.

CORPORATE SOURCE: Genome Institute of Singapore, 138672, Singapore

SOURCE: BMC Infectious Diseases (2004), 4, No pp. given

CODEN: BIDMBJ; ISSN: 1471-2334

URL: <http://www.biomedcentral.com/content/pdf/1471-2334-4-32.pdf>

PUBLISHER: BioMed Central Ltd.

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

AB Background: The SARS coronavirus is the etiol. agent for the epidemic of the Severe Acute Respiratory Syndrome. The recent emergence of this new pathogen, the careful tracing of its transmission patterns, and the ability to propagate in culture allows the exploration of the mutational dynamics of the SARS-CoV in human populations. Methods: The authors sequenced complete SARS-CoV genomes taken from primary human tissues (SIN3408, SIN3725V, SIN3765V), cultured isolates (SIN848, SIN846, SIN842, SIN845, SIN847, SIN849, SIN850, SIN852, SIN3408L), and five consecutive Vero cell passages (SIN2774\_P1, SIN2774\_P2, SIN2774\_P3, SIN2774\_P4, SIN2774\_P5) arising from SIN2774 isolate. These represented individual patient samples, serial in vitro passages in cell culture, and paired human and cell culture isolates. Employing a refined mutation filtering scheme and constant mutation rate model, the mutation rates were estimated and the possible date of emergence was calculated. Phylogenetic anal. was used to uncover mol. relationships between the isolates. Results: Close examination of whole genome sequence of 54 SARS-CoV isolates identified before 14th Oct. 2003, including 22 from patients in Singapore, revealed the mutations engendered during human-to-Vero and Vero-to-human transmission as well as in multiple Vero cell passages in order to refine our anal. of human-to-human transmission. Though co-infection by different quasispecies in individual tissue samples is observed, the in vitro mutation rate of the SARS-CoV in Vero cell passage is negligible. The in vivo mutation rate, however, is consistent with ests. of other RNA viruses at approx.  $5.7 \times 10^{-6}$  nucleotide substitutions per site per day (0.17 mutations per genome per day), or two mutations per human passage (adjusted R-square=0.4014). Using the immediate Hotel M contact isolates as roots, it was observed that the SARS epidemic has generated four major genetic groups that are geog. associated: two Singapore isolates, one Taiwan isolate, and one North China isolate which appears most closely related to the putative SARS-CoV isolated from a palm civet. Non-synonymous mutations are centered in non-essential ORFs especially in structural and antigenic genes

such as the S and M proteins, but these mutations did not distinguish the geog. groupings. However, no non-synonymous mutations were found in the 3CLpro and the polymerase genes. Conclusions: The results show that the SARS-CoV is well adapted to growth in culture and did not appear to undergo specific selection in human populations. The authors further assessed that the putative origin of the SARS epidemic was in late Oct. 2002 which is consistent with a recent estimate using cases from China. The greater sequence divergence in the structural and antigenic proteins and consistent deletions in the 3'-most portion of the viral genome suggest that certain selection pressures are interacting with the functional nature of these validated and putative ORFs.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 19 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:802865 HCPLUS  
 DOCUMENT NUMBER: 141:308634  
 TITLE: Combined adeno-associated virus and adenovirus cocktail gene delivery system for high efficiency gene expression of bone morphogenetic protein  
 INVENTOR(S): Chen, Yan; Kung, Hsiangfu; Lin, Marie C. M.; Luk, K. D. K.  
 PATENT ASSIGNEE(S): The University of Hong Kong, Peop. Rep. China  
 SOURCE: PCT Int. Appl., 73 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004083434	A1	20040930	WO 2004-CN209	20040317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004223953	A1	20041111	US 2004-801648	20040317

PRIORITY APPLN. INFO.: US 2003-455188P P 20030317  
 AB The present invention provides an efficient gene delivery system using Adeno-Associated Viral (AAV) vector in gene therapy. Furthermore, the invention provides a combined AAV and Adenovirus (Adv) cocktail gene delivery system which is even more efficient in in vivo gene delivery and expression without eliciting any significant immune responses in an immunocompetent subject. In particular, the invention provides a therapeutic agent and methods for preventing, treating, managing, or ameliorating various diseases and disorders including, but not limited to, bone diseases, by delivering Bone Morphogenetic Protein 2 (BMP-2) for new bone formation via gene therapy using said system. The invention also relates to the protein and cDNA sequences of human bone morphogenetic protein 2.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 20 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:542597 HCPLUS  
 DOCUMENT NUMBER: 141:231747  
 TITLE: New Measurement of  $\Xi^- \rightarrow \Lambda\pi^-$  Decay  
 Parameters  
 AUTHOR(S): Huang, M.; Burnstein, R. A.; Chakravorty, A.;  
 Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes,  
 E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gustafson,  
 H. R.; Holmstrom, T.; James, C.; Jenkins, C. M.;  
 Jones, T.; Kaplan, D. M.; Lederman, L. M.; Leros, N.;  
 Longo, M. J.; Lopez, Fred; Lu, L.; Luebke, W.;  
 Luk, K. B.; Nelson, K. S.; Park, H. K.;  
 Perroud, J. P.; Rajaram, D.; Rubin, H. A.; Volk, J.;  
 White, C.; White, S.; Zyla, P.  
 CORPORATE SOURCE: HyperCP Collaboration, Institute of Physics, Academia  
 Sinica, Taichung, 11529, Taiwan  
 SOURCE: Physical Review Letters (2004), 93(1),  
 011802/1-011802/5  
 CODEN: PRLTAO; ISSN: 0031-9007  
 PUBLISHER: American Physical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Based on a sample of 144+106 polarized  $\Xi^- \rightarrow \Lambda\pi^-$ ,  
 $\Lambda \rightarrow p\pi^-$  decays collected by the HyperCP experiment (E871) at  
 Fermilab, we report a new measurement of the  $\Xi^-$  decay-parameter angle  
 $\beta\Xi = (-2.39 \pm 0.64 \pm 0.64)^\circ$  from which we deduce the decay  
 parameters  $\beta\Xi = -0.037 \pm 0.011 \pm 0.010$  and  $\gamma\Xi = 0.888 \pm -0.0004 \pm 0.006$ . Assuming that the CP-violating phase difference between  
 s and p waves is negligible, the strong phase-shift difference,  
 $\delta p - \delta s$ , for  $\Lambda\pi$  scattering is determined to be  
 $(4.6 \pm 1.4 \pm 1.2)^\circ$ .

L21 ANSWER 21 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:513331 HCPLUS  
 DOCUMENT NUMBER: 141:71554  
 TITLE: A preparation of novel pyrido[2,3-d]pyrimidinone  
 derivatives, useful as selective inhibitors of kinase  
 insert domain-containing receptor (KDR) and fibroblast  
 growth factor receptor (FGFR)  
 INVENTOR(S): Liu, Jin-Jun; Luk, Kin-Chun  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 33 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004122029	A1	20040624	US 2003-731594	20031208
WO 2004056822	A1	20040708	WO 2003-EP14067	20031211
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,				

BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-434969P P 20021220  
 US 2003-513615P P 20031023

OTHER SOURCE(S): MARPAT 141:71554  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to a preparation of novel pyrido[2,3-d]pyrimidinone derivs. of formula I [wherein: Ar and Ar1 are independently selected from (un)substituted (hetero)aryl with the proviso that for Ar, the heteroaryl is not 2-pyridyl; R1 is H, C1-10alkyl, heterocyclyl, or cycloalkyl, etc.], useful as selective inhibitors of kinase insert domain-containing receptor (KDR) and fibroblast growth factor receptor (FGFR). The invention compds. and their pharmaceutically acceptable salts are anti-proliferative agents, useful in the treatment or control of solid tumors, in particular breast, colon lung, and prostate tumors. To determine inhibition of KDR, FGFR, EGFR, and PDGFR activity, kinase assays were conducted using homogeneous time-resolved fluorescence assay. For instance, pyridinone derivative II [IC50(μM) for enzyme inhibition: KDR < 10%, FGFR < 10%; IC50 of VEGF < 10%] was prepared via intramol. cyclization of aminopyrimidine derivative III in the presence of sulfuric acid with a yield of 36.3% (example 2c).

L21 ANSWER 22 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:439432 HCPLUS  
 DOCUMENT NUMBER: 141:119112

TITLE: Separation of snailase on continuous rod hydrophobic interaction chromatographic column

AUTHOR(S): Zheng, Chao; Liu, Hai-yan; Wang, Li-juan; Liu, Er-dong; Yang, Geng-liang; Chen, Yi

CORPORATE SOURCE: College of Chemistry and Environmental Science, Hebei University, Baoding, 071002, Peop. Rep. China

SOURCE: Hebei Daxue Xuebao, Ziran Kexueban (2004), 24(2), 168-171

CODEN: HDXKEB; ISSN: 1000-1565

PUBLISHER: Hebei Daxue Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB A continuous rod hydrophobic interaction chromatog. column was prepared by a free radical polymerization (where glycidyl methacrylate used as monomer and ethylene glyeoldimethacrylate as crosslinking agent) and used in the separation of snailase. The effect of polymerization conditions on the hydrophobicity of the rod and the preparative effects of snailase were investigated.

L21 ANSWER 23 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:409460 HCPLUS

DOCUMENT NUMBER: 141:196415

TITLE: HyperCP: A high-rate spectrometer for the study of charged hyperon and kaon decays

AUTHOR(S): Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W.-S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Fuzesy, R.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Jones, T. D.;

Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K.-B.; Nelson, K. S.; Park, H. K.; Perroud, J.-P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Turko, B.; Volk, J.; White, C. G.; White, S. L.; Zyla, P. Illinois Institute of Technology, Chicago, IL, 60616, USA

CORPORATE SOURCE: Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2004) 1-107, arXiv:hep-ex/0405034, 14 May 2004  
SOURCE: Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2004) 1-107, arXiv:hep-ex/0405034, 14 May 2004  
CODEN: LNHEFS  
URL: <http://xxx.lanl.gov/pdf/hep-ex/0405034>

PUBLISHER: Los Alamos National Laboratory  
DOCUMENT TYPE: Preprint  
LANGUAGE: English

AB The HyperCP experiment (Fermilab E871) was designed to search for rare phenomena in the decays of charged strange particles, in particular CP violation in  $\Xi$  and  $\Lambda$  hyperon decays with a sensitivity of  $10^{-4}$ . Intense charged secondary beams were produced by 800 GeV/c protons and momentum-selected by a magnetic channel. Decay products were detected in a large-acceptance, high-rate magnetic spectrometer using multiwire proportional chambers, trigger hodoscopes, a hadronic calorimeter, and a muon-detection system. Nearly identical acceptances and efficiencies for hyperons and antihyperons decaying within an evacuated volume were achieved by reversing the polarities of the channel and spectrometer magnets. A high-rate data acquisition system enabled 231 billion events to be recorded in 12 mo of data-taking.

L21 ANSWER 24 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:309224 HCPLUS  
DOCUMENT NUMBER: 140:400667  
TITLE: Combination of adeno-associated virus and adenovirus vectors expressing bone morphogenetic protein-2 produces enhanced osteogenic activity in immunocompetent rats

AUTHOR(S): Chen, Yan; Luk, Keith D. K.; Cheung, Kenneth M. C.; Lu, William W.; An, Xiao-Meng; Ng, Samuel S. M.; Lin, Marie C.; Kung, Hsiang-Fu  
CORPORATE SOURCE: Affiliated Hospital of Medical College, Department of Orthopaedics, Qingdao University, Qingdao, Peop. Rep. China  
SOURCE: Biochemical and Biophysical Research Communications (2004), 317(3), 675-681  
CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier Science  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The authors have previously shown that gene therapy using adeno-associated virus (AAV) carrying bone morphogenetic proteins (BMPs) is a promising strategy for new bone formation in vivo in SD rats. However, it had a relatively low transduction efficiency. The authors investigate here whether enhanced osteogenic activity can be achieved without eliciting a severe immune response, using a cocktail of AAV-BMP2 and adenovirus (Ad)-BMP2 as a vector system. The muscles of SD rats were injected with either AAV-BMP2, Ad-BMP2, or an AAV-BMP2/Ad-BMP2 cocktail, and the in vivo bone formation was determined at eight weeks post-injection. Radiog. examination

demonstrated that the addition of a low level of Ad-BMP2 to AAV-BMP2 produced significantly higher new bone formation than the use of AAV-BMP2 alone. Histol. and immunohistol. anal. revealed an enlarged bone-forming area and

a long-term BMP2 expression, without pronounced infiltration of lymphocytes. The authors' results provide the first evidence that the introduction of a low level of adenovirus *in vivo* in immunocompetent subjects can greatly enhance AAV-mediated gene transfer, without inducing severe immune responses. This cocktail vector system may offer an attractive way of improving the efficiency of AAV-based gene delivery.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 25 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:99279 HCPLUS  
 DOCUMENT NUMBER: 140:296865  
 TITLE: A new series of potent oxindole inhibitors of CDK2  
 AUTHOR(S): Luk, Kin-Chun; Simcox, Mary Ellen; Schutt, Andy; Rowan, Karen; Thompson, Thelma; Chen, Yi; Kammlott, Ursula; DePinto, Wanda; Dunten, Pete; Dermatakis, Apos  
 CORPORATE SOURCE: Hoffmann-La Roche Inc., Nutley, NJ, 07110-1199, USA  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2004), 14(4), 913-917  
 CODEN: BMCL8; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB A novel series of oxindole-type inhibitors of CDK2 that have heteroatom substituted alkynyl moieties at their C-4 position is described. These novel 4-alkynyl-substituted inhibitors have superior potency relative to their parent compound in free enzyme and in cell based assays. The crystal structure of CDK2 in complex with one of these analogs was determined and gives insight to their increased potency. The biochem. evaluation of a representative derivative is also described.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 26 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2003:770176 HCPLUS  
 DOCUMENT NUMBER: 140:242081  
 TITLE: Measurement of  $\alpha\Omega$  in  $\Omega^- \rightarrow \Lambda K^-$  decays  
 AUTHOR(S): Lu, Lan-Chun; Chan, A.; Chen, Y. C.; Ho, C.; Teng, P. K.; Choong, W. S.; Fu, Y.; Gidal, G.; Gu, P.; Jones, T.; Luk, K. B.; Turko, B.; Zyla, P.; James, C.; Volk, J.; Felix, J.; Burnstein, R. A.; Chakravorty, A.; Kaplan, D. M.; Lederman, L. M.; Luebke, W.; Rajaram, D.; Rubin, H. A.; Solomey, N.; Torun, Y.; White, C. G.; White, S. L.; Leros, N.; Perroud, J.-P.; Gustafson, H. R.; Longo, M. J.; Lopez, F.; Park, H. K.; Jenkins, M.; Clark, K.; Dukes, E. C.; Durandet, C.; Holmstrom, T.; Huang, M.; Lu, L. C.; Nelson, K. S.  
 CORPORATE SOURCE: HyperCP Collaboration, Physics Department, University of Virginia, Charlottesville, VA, 22901, USA  
 SOURCE: AIP Conference Proceedings (2003), 675(SPIN 2002), 251-255  
 CODEN: APCPCS; ISSN: 0094-243X  
 PUBLISHER: American Institute of Physics  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The HyperCP experiment (E871) at Fermilab has collected the largest sample of hyperon decays in the world. With a data set of over a million  $\Omega^-$

→  $\Lambda K^-$  decays we have measured the product of  $\alpha \Omega \alpha \Lambda$  from which we have extracted  $\alpha \Omega$ .

This preliminary result indicates that  $\alpha \Omega$  is small, but non-zero. Prospects for a test of CP symmetry by comparing the  $\alpha$  parameters in  $\Omega^-$  and  $-\Omega^+$  decays will be discussed.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 27 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2003:621921 HCPLUS  
DOCUMENT NUMBER: 139:286277  
TITLE: Adeno-associated virus-mediated bone morphogenetic protein-4 gene therapy for in vivo bone formation  
AUTHOR(S): Luk, Keith D. K.; Chen, Yan; Cheung, Kenneth M. C.; Kung, Hsiang-fu; Lu, William W.; Leong, John C. Y.  
CORPORATE SOURCE: Faculty of Medicine, Department of Orthopaedic Surgery, The University of Hong Kong, Hong Kong  
SOURCE: Biochemical and Biophysical Research Communications (2003), 308(3), 636-645  
CODEN: BBRCA9; ISSN: 0006-291X  
PUBLISHER: Elsevier Science  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Adeno-associated virus (AAV) is so far the most valuable vehicle for gene therapy because it has no association with immune response and human disease. The present study was conducted to investigate the feasibility of AAV-mediated BMP4 gene transfer for bone formation. In vitro study suggested that AAV-BMP4 vectors could transduce myoblast C2C12 cells and produce osteogenic BMP4. In vivo study demonstrated that new bone formation could be induced by direct injection of AAV-BMP4 into the skeletal muscle of immunocompetent rats. Histol. anal. revealed that the newly formed bone was induced through endochondral mechanism. Immunohistochem. staining further demonstrated that AAV-BMP4 gene delivery could mediate long-term transduction, and the involvement of BMP4 expression was responsible for the endochondral ossification. This study is, to our knowledge, the first report in the field of AAV-based BMP gene transfer and should be promising for clin. orthopedic applications.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 28 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2003:574001 HCPLUS  
DOCUMENT NUMBER: 139:240767  
TITLE: Gene therapy for new bone formation using adeno-associated viral bone morphogenetic protein-2 vectors  
AUTHOR(S): Chen, Y.; Luk, K. D. K.; Cheung, K. M. C.; Xu, R.; Lin, M. C.; Lu, W. W.; Leong, J. C. Y.; Kung, H.-F.  
CORPORATE SOURCE: Faculty of Medicine, Department of Orthopaedic Surgery, The University of Hong Kong, Hong Kong, Peop. Rep. China  
SOURCE: Gene Therapy (2003), 10(16), 1345-1353  
CODEN: GETHEC; ISSN: 0969-7128  
PUBLISHER: Nature Publishing Group  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Previous reports have suggested that bone morphogenetic protein (BMP) gene therapy could be applied for in vivo bone regeneration. However, these

studies were conducted either using immunodeficient animals because of immunogenicity of adenovirus vectors, or using ex vivo gene transfer technique, which is much more difficult to handle. Adeno-associated virus (AAV) is a replication-defective virus without any association with immunogenicity and human disease. This study was conducted to investigate whether orthotopic new bone formation could be induced by in vivo gene therapy using AAV-based BMP2 vectors. To test the feasibility of this approach, the authors constructed an AAV vector carrying human BMP2 gene. Mouse myoblast cells (C2C12) transduced with this vector could produce and secrete biol. active BMP2 protein and induce osteogenic activity, which was confirmed by ELISA and alkaline phosphatase activity assay. For in vivo study, AAV-BMP2 vectors were directly injected into the hindlimb muscle of immunocompetent Sprague-Dawley rats. Significant new bone under x-ray films could be detected as early as 3 wk postinjection. The ossification tissue was further examined by histol. and immunohistochem. anal. This study is, to the authors' knowledge, the first to establish the feasibility of AAV-based BMP2 gene therapy for endochondral ossification in immunocompetent animals.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 29 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:521319 HCPLUS

DOCUMENT NUMBER: 139:239659

TITLE: 3,5,6-Trisubstituted naphthostyrils as CDK2 inhibitors

AUTHOR(S): Liu, Jin-Jun; Dermatasakis, Apostolos; Lukacs, Christine; Konzelmann, Fred; Chen, Yi; Kammlott, Ursula; Depinto, Wanda; Yang, Hong; Yin, Xuefeng; Chen, Yingsi; Schutt, Andy; Simcox, Mary Ellen; Luk, Kin-Chun

CORPORATE SOURCE: Department of Discovery Chemistry, Hoffmann-La Roche Inc., Nutley, NJ, 07110, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2003), 13 (15), 2465-2468

CODEN: BMCL8; ISSN: 0960-894X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:239659

AB A novel class of 3,5,6-trisubstituted naphthostyril analogs was designed and synthesized to study the structure-activity relationship for inhibition of cyclin-dependent kinase 2 (CDK2). These compds., particularly mols. with side-chain modifications providing addnl. hydrogen bonding capability, were demonstrated to be potent CDK2 inhibitors with cellular activities consistent with CDK2 inhibition. These mols. inhibited tumor cell proliferation and G1-S and G2-M cell-cycle progression in vitro. The x-ray crystal structure of a 2-aminoethyleneamine derivative bound to CDK2, refined to 2.5A resolution, is presented.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 30 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:486997 HCPLUS

DOCUMENT NUMBER: 140:47209

TITLE: Separation of aminoantipyrine and its close analogues by molecular imprinting stationary phase

AUTHOR(S): Li, Zhiwei; Yang, Gengliang; Wang, Dexian; Zhou, Shengli; Liu, Erdong; Chen, Yi

CORPORATE SOURCE: College of Chemistry and Environmental Science, Hebei

SOURCE: University, Baoding, 071002, Peop. Rep. China  
 Chemical Journal on Internet (2003), 5(6), No pp.  
 given  
 CODEN: CJIHAC; ISSN: 1523-1623  
 URL: <http://www.chemistrymag.org/cji/2003/056046ne.htm>

PUBLISHER: Chemical Journal on Internet  
 DOCUMENT TYPE: Journal; (online computer file)  
 LANGUAGE: English

AB A synthetic polymer selector for aminoantipyrine is prepared by mol. imprinting technol. Methacrylic acid and ethylene glycol dimethacrylate are copolymerd. in the presence of the template aminoantipyrine. The template is extracted from the polymer leaving specific recognition sites, complementary to the template. The polymer is utilized as a stationary phase in HPLC. The mixture of the two close analogs, aminoantipyrine and aminopyrine, can be baseline separated when the mobile solution is composed of methanol:isopropanol = 2:8. When the concentration of isopropanol is 100%, only aminopyrine is eluted and the aminoantipyrine is completely reserved by the column.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 31 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2003:325872 HCPLUS  
 DOCUMENT NUMBER: 139:197325  
 TITLE: Organometallic reagent-mediated one-pot synthesis of 3,5,6-trisubstituted naphthostyrils  
 AUTHOR(S): Liu, Jin-Jun; Konzelmann, Fred; Luk, Kin-Chun  
 CORPORATE SOURCE: Department of Discovery Chemistry, Hoffmann-La Roche Inc., Nutley, NJ, 07110, USA  
 SOURCE: Tetrahedron Letters (2003), 44(20), 3901-3904  
 CODEN: TELEAY; ISSN: 0040-4039  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 139:197325  
 AB A 1-pot synthesis of 3,5,6-trisubstituted naphthostyrils is described. Addition of organometallic reagents to  $\beta$ -iodovinyl ketone followed by elimination gave the Z-form  $\beta$ -alkyl vinyl ketone. Intramol. cyclization of the vinyl ketones under the reaction conditions afforded 3,5,6-trisubstituted naphthostyrils.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 32 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2003:193331 HCPLUS  
 DOCUMENT NUMBER: 138:211433  
 TITLE: Search for CP violation in hyperon decays  
 AUTHOR(S): Zyla, Piotr; Chan, A.; Chen, Y. C.; Ho, C.; Teng, P. K.; Choong, W. S.; Gidal, G.; Fu, Y.; Gu, P.; Jones, T.; Luk, K. B.; Turko, B.; Zyla, P.; James, C.; Volk, J.; Felix, J.; Burnstein, R. A.; Chakrovorty, A.; Kaplan, D. M.; Lederman, L. M.; Luebke, W.; Rajaram, D.; Rubin, H. A.; Solomey, N.; Torun, Y.; White, C. G.; White, S. L.; Leros, N.; Perroud, J. P.; Gustafson, H. R.; Longo, M. J.; Lopez, F.; Park, H. K.; Clark, K.; Jenkins, M.; Dukes, E. C.; Durandet, C.; Holmstrom, T.; Huang, M.; Lu, L.; Nelson, K. S.

CORPORATE SOURCE: HyperCP Collaboration, Lawrence Berkeley National Laboratory, Berkeley, CA, 94720-8165, USA

SOURCE: Nuclear Physics B, Proceedings Supplements (2003), 115 (Hyperons, Charm and Beauty Hadrons), 242-245  
CODEN: NPBSE7; ISSN: 0920-5632

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Direct CP violation in nonleptonic hyperon decays can be established by comparing the decays of hyperons and antihyperons. For  $\Xi$  decay to  $\Lambda\pi$  followed by  $\Lambda$  decay to  $p\pi$ , the proton distribution in the rest frame of  $\Lambda$  is governed by the product of the decay parameters  $\alpha\Xi\Lambda$ . The asymmetry  $A\Xi\Lambda$ , proportional to the difference of  $\alpha\Xi\Lambda$  of the hyperon and antihyperon decays, vanishes if CP is conserved. We report on an anal. of a fraction of 1997 and 1999 data collected by the HyperCP (E871) collaboration during the fixed-target runs at Fermilab. The preliminary measurement of the asymmetry is  $A\Xi\Lambda = [-7 \pm 12(\text{stat}) \pm 6.2(\text{sys})] + 10^{-4}$ , an order of magnitude better than the present limit.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 33 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:162612 HCPLUS

DOCUMENT NUMBER: 139:69008

TITLE: A novel and convenient method for the synthesis of substituted naphthostyrils

AUTHOR(S): Liu, Jin-Jun; Konzelmann, Fred; Luk, Kin-Chun

CORPORATE SOURCE: Department of Discovery Chemistry, Hoffmann-La Roche Inc., Nutley, NJ, 07110, USA

SOURCE: Tetrahedron Letters (2003), 44(12), 2545-2548  
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:69008

AB The reaction of 2-[(1,1-dimethylethoxy)carbonyl]oxy]-5-fluoro-4-iodo-1H-indole-1-carboxylic acid 1,1-dimethylethyl ester with 2-(1-hydroxy-2-propynyl)-1H-pyrrole-1-carboxylic acid 1,1-dimethylethyl ester gave 2-[(1,1-dimethylethoxy)carbonyl]oxy]-4-[3-[1-[(1,1-dimethylethoxy)carbonyl]-1H-pyrrol-2-yl]-3-oxo-1-propynyl]-5-fluoro-1H-Indole-1-carboxylic acid 1,1-dimethylethyl ester. Treatment of the latter with sodium iodide/TFA gave the key intermediate, 5-fluoro-1,3-dihydro-4-[(1Z)-1-iodo-3-oxo-3-(1H-pyrrol-2-yl)-1-propenyl]-2H-Indol-2-one (I) as a single isomer. A one-pot cyclization of I with alcs. or amines gave the desired naphthostyrils. Compsd. thus prepared included 6-fluoro-5-methoxy-3-(1H-pyrrol-2-yl)benz[cd]indol-2(1H)-one, 5-ethoxy-6-fluoro-3-(1H-pyrrol-2-yl)benz[cd]indol-2(1H)-one, 5-(2-aminoethylamino)-6-fluoro-3-(1H-pyrrol-2-yl)-1H-benzo[cd]indol-2-one, 5-(3-aminopropylamino)-6-fluoro-3-(1H-pyrrol-2-yl)-1H-benzo[cd]indol-2-one, [2-[(6-fluoro-1,2-dihydro-2-oxo-3-(1H-pyrrol-2-yl)benz[cd]indol-5-yl)oxy]ethyl]carbamic acid 1,1-dimethylethyl ester, etc.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 34 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:864977 HCPLUS

DOCUMENT NUMBER: 138:146886

TITLE: Chiral separation of N-(trans-4-isopropylcyclohexylcarbonyl)-D,L-phenylalanine isomers by high performance liquid chromatography  
 AUTHOR(S): Yang, Gengliang; Li, Zhiwei; Wang, Dexian; Zhang, Zhefeng; Liu, Erdong; Chen, Yi  
 CORPORATE SOURCE: College of Chemistry and Environmental Science, Hebei University, Baoding, 071002, Peop. Rep. China  
 SOURCE: Chromatographia (2002), 56(7/8), 515-518  
 CODEN: CHRGB7; ISSN: 0009-5893  
 PUBLISHER: Friedrich Vieweg & Sohn Verlagsgesellschaft mbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A HPLC method was developed for the chiral separation of a new anti-diabetic agent, N-(trans-4-isopropylcyclohexylcarbonyl)-D-phenylalanine, and its L-enantiomer. The separation was performed on a Sumichiral OA-3300 column. Optimized mobile phase was 0.025 mol L-1 ammonium acetate in methanol solution. UV detection was at 210 nm. Baseline chiral separation was obtained within 12 min. The detection limits are 80 pg for the D-enantiomer and 120 pg for the L-enantiomer. Relative standard deviation of the method was <1% (n = 5).  
 REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 35 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:859526 HCPLUS  
 DOCUMENT NUMBER: 138:104731  
 TITLE: Gene expression after treatment with hydrogen peroxide, menadione, or t-butyl hydroperoxide in breast cancer cells  
 AUTHOR(S): Chuang, Yao-Yu Eric; Chen, Yidong; Gadisetti, Chandramouli, V. R.; Cook, John A.; Coffin, Deborah; Tsai, Mong-Hsun; DeGraff, William; Yan, Hailing; Zhao, Shuping; Russo, Angelo; Liu, Edison T.; Mitchell, James B.  
 CORPORATE SOURCE: Radiation Biology Branch, Center for Cancer Research, National Cancer Institute, NIH, Bethesda, MD, 20892, USA  
 SOURCE: Cancer Research (2002), 62(21), 6246-6254  
 CODEN: CNREA8; ISSN: 0008-5472  
 PUBLISHER: American Association for Cancer Research  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Global gene expression patterns in breast cancer cells after treatment with oxidants (hydrogen peroxide, menadione, and t-Bu hydroperoxide) were investigated in three replicate expts. RNA collected after treatment (at 1, 3, 7, and 24 h) rather than after a single time point, enabled an anal. of gene expression patterns. Using a 17,000 microarray, template-based clustering and multidimensional scaling anal. of the gene expression over the entire time course identified 421 genes as being either up- or down-regulated by the three oxidants. In contrast, only 127 genes were identified for any single time point and a 2-fold change criteria. Surprisingly, the patterns of gene induction were highly similar among the three oxidants; however, differences were observed, particularly with respect to p53, IL-6, and heat-shock related genes. Replicate expts. increased the statistical confidence of the study, whereas changes in gene expression patterns over a time course demonstrated significant addnl. information vs. a single time point. Analyzing the three oxidants simultaneously by template cluster anal. identified genes that heretofore have not been associated with oxidative stress.  
 REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 36 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:796391 HCPLUS  
 DOCUMENT NUMBER: 137:342827  
 TITLE: CP violation in hyperon and charged kaon decays  
 AUTHOR(S): Chan, A.; Chen, Y. C.; Ho, C.; Teng, P. K.; Choong, W. S.; Fu, Y.; Gidal, G.; Gu, P.; Jones, T.; Luk, K. B.; Turko, B.; Zyla, P.; James, C.; Volk, J.; Felix, J.; Moreno, G.; Sosa, M.; Burnstein, R.; Chakravorty, A.; Kaplan, D.; Luebke, W.; Lederman, L.; Rubin, H.; Rajaram, D.; Solomey, N.; Torun, Y.; White, C.; White, S.; Leros, N.; Perroud, J. P.; Gustafson, H. R.; Longo, M. J.; Lopez, F.; Park, H. K.; Clark, K.; Jenkins, M.; Dukes, C.; Durandet, C.; Godang, R.; Holmstrom, T.; Huang, M.; Lu, L. C.; Nelson, K.  
 CORPORATE SOURCE: Institute of Physics, Academia Sinica, Taipei, Taiwan, 11529, Peop. Rep. China  
 SOURCE: AIP Conference Proceedings (2002), 624 (Cosmology and Elementary Particle Physics), 298-305  
 CODEN: APCPCS; ISSN: 0094-243X  
 PUBLISHER: American Institute of Physics  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The primary purpose of the HyperCP experiment at Fermilab is to test CP in hyperon decays by comparing the decay distributions for  $\Xi^-$  ("cascade") decays in the decay sequence:  $\Xi^- \rightarrow \pi^- + \Lambda^0, \Lambda^0 \rightarrow \pi^- + p$ , with those for the antiparticle  $\Lambda^0 \rightarrow \pi^- + p$ , with those for the antiparticle  $\Xi^+$ . In addition, we can test CP in charged kaon decays by comparing the slopes of the Dalitz plot for  $K^+$  and  $K^-$  decays. We are also looking at rare decay modes of charged kaons and hyperons, particularly those involving muons. In two runs in 1997 and 1999, we collected approx. 500 million charged kaon decays, 2.5 billion  $\Xi^-$  and  $\Xi^+$  decays, and 19 million  $\Omega^-$  and  $\Omega^+$  decays. This is the largest sample of fully reconstructed particle decays ever collected.  
 REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 37 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:765569 HCPLUS  
 DOCUMENT NUMBER: 138:67040  
 TITLE: In vivo new bone formation by direct transfer of adenoviral-mediated bone morphogenetic protein-4 gene  
 AUTHOR(S): Chen, Yan; Cheung, Kenneth M. C.; Kung, Hsiang-fu; Leong, John C. Y.; Lu, William W.; Luk, Keith D. K.  
 CORPORATE SOURCE: Faculty of Medicine, Department of Orthopaedic Surgery, The University of Hong Kong, Hong Kong  
 SOURCE: Biochemical and Biophysical Research Communications (2002), 298(1), 121-127  
 CODEN: BBRCA9; ISSN: 0006-291X  
 PUBLISHER: Elsevier Science  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Previous studies have demonstrated that bone morphogenetic protein-4 (BMP4) could participate in in vivo endochondral ossification and is one of the main local contributing factors in the early stage of fracture healing. To investigate the effectiveness of BMP4 gene transfer, the authors constructed an adenoviral vector, Ad-BMP4, and evaluated its

osteoinduction activity both in vitro and in vivo. In vitro study suggested that this vector could efficiently transduce mouse myoblast C2C12 cells and produce osteogenic BMP4 protein, as confirmed by immunofluorescence anal. and alkaline phosphatase activity assay. For in vivo study, Ad-BMP4 was directly injected into the hind limb muscles of male athymic nude rats. Visible new bone formation under x-ray films could be detected as early as three weeks post-injection. The bone tissue was further analyzed by histol. staining and revealed a typical remodeled bone structure. In conclusion, this study is the first to establish the feasibility of adenovirus-based BMP4 gene therapy for bone regeneration.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 38 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:575067 HCPLUS

DOCUMENT NUMBER: 137:125081

TITLE: Preparation of 3-(1H-pyrrol-2-yl)naphthostyrils as CDK2 inhibitors for treatment of cancer

INVENTOR(S): Chen, Yi; Dermatas, Apostolos; Konzelmann, Frederick Martin; Liu, Jin-Jun; Luk, Kin-Chun

PATENT ASSIGNEE(S): F. Hoffmann-La Roche Ag, Switz.

SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

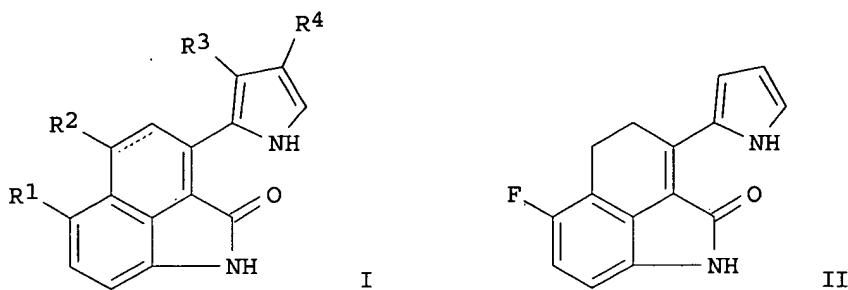
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002059109	A2	20020801	WO 2002-EP366	20020116
WO 2002059109	A3	20020919		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2002147343	A1	20021010	US 2002-43732	20020110
US 6504034	B2	20030107		
CA 2434381	AA	20020801	CA 2002-2434381	20020116
EP 1358180	A2	20031105	EP 2002-706711	20020116
EP 1358180	B1	20041201		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
BR 2002006621	A	20040225	BR 2002-6621	20020116
JP 2004517150	T2	20040610	JP 2002-559411	20020116
AT 283852	E	20041215	AT 2002-706711	20020116
US 6531598	B1	20030311	US 2002-224022	20020820
PRIORITY APPLN. INFO.:			US 2001-263658P	P 20010123
			US 2002-43732	A3 20020110
			WO 2002-EP366	W 20020116
OTHER SOURCE(S):		MARPAT 137:125081		
GI				



AB The title 3-(1H-pyrrol-2-yl)-1H-benzo[cd]indol-2-ones I [wherein R1 = H, OR5, halo, CN, NO2, COR5, CO2R5, CONR5R6, NR5R6, S00-2R5, S00-2NR5R6, or (un)substituted alkyl; R2 = as defined for R1 or (un)substituted cycloalkyl or heterocyclyl; R3 and R4 = independently H, OR5, CN, NO2, COR5, CO2R5, CONR5R6, NR5R6, S00-2R5, S00-2NR5R6, or (un)substituted alkyl; R5 = H or (un)substituted (cyclo)alkyl, (hetero)aryl, or heterocyclyl; R6 = H, COR9, CONR9R10, S00-2, S00-2NR9R10, or (un)substituted (cyclo)alkyl; or NR5R6 = (un)substituted N-containing heterocyclyl; R9 = H or (cyclo)alkyl; R10 = H, COR11, or (cyclo)alkyl; or NR9R10 = N-containing heterocyclyl; R11 = (cyclo)alkyl; and their pharmaceutically acceptable salts and esters] were prepared as inhibitors of cyclin-dependent kinase (CDK), in particular CDK2. Addition of 2-(1-hydroxyprop-2-ynyl)pyrrole-1-carboxylic acid tert-Bu ester to 2-tert-butoxycarbonyloxy-5-fluoro-4-iodoindole-1-carboxylic acid tert-Bu ester (preparation of starting materials given) in the presence of Pd(PPh<sub>3</sub>)<sub>4</sub>, CuI, and TEA in THF afforded the 4-(3-pyrrolyl-3-hydroxyprop-1-ynyl)indole (83%). Oxidation to the ketone using MnO<sub>2</sub> in CH<sub>2</sub>Cl<sub>2</sub> (92.5%), followed by reduction of the alkyne with Lindlar catalyst and deprotection with TFA (86.7%), afforded 5-fluoro-4-[3-oxo-3-(1H-pyrrol-2-yl)propyl]-1,3-dihydroindol-2-one. Reflux with NaOH in H<sub>2</sub>O overnight produced the cyclized 1H-benzo[cd]indol-2-one II (90.4%). The latter inhibited Rb phosphorylation, a measure of CDK2 activity, in recombinant retinoblastoma (Rb) protein with IC<sub>50</sub> of ≤10 μM. II also demonstrated anti-proliferative activity against MDA-MB435 breast carcinoma and RKO colon carcinoma cell lines with IC<sub>50</sub> values of ≤10 μM. Thus, I are anti-proliferative agents useful in the treatment or control of cell proliferative disorders, in particular cancer.

L21 ANSWER 39 OF 58 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:473424 HCAPLUS  
 DOCUMENT NUMBER: 137:162925  
 TITLE: Application of resilient backpropagation neural network in predicting hydrophobic parameters of alkylbenzenes  
 AUTHOR(S): Liu, Er-Dong; Yang, Geng-Liang; Tian, Bao-Juan; Li, Zhi-Wei; Chen, Yi  
 CORPORATE SOURCE: College of Chemistry and Environmental Science, Hebei University, Baoding, 071002, Peop. Rep. China  
 SOURCE: Sepu (2002), 20(3), 216-218  
 CODEN: SEPUER; ISSN: 1000-8713  
 PUBLISHER: Kexue Chubanshe  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB Artificial neural networks were applied for predicting the hydrophobic parameters of alkylbenzene. Compared with traditional methods it has the advantages of simple operation and wide applications. Based on error back

propagation neural networks the relation among the mol. connectivity index (X), van der Waals surface area (Aw) and hydrophobic parameter was studied, meanwhile the math. model was established and used to predict the hydrophobic parameters. By comparing the hydrophobic parameters of exptl. values with those calculated by neural networks, the authors found they had good agreement. The average relative deviation was <1%. Because traditional back propagation network is generally time consuming, resilient backpropagation (RPROP) algorithm was used to solve this problem. By using RPROP algorithm, the hydrophobic parameters were obtained precisely by fast training and simple parameter's selection. It needed <1000 iterations to reach the goal on the computer operated at 1.4 GHz. The present work shows that the artificial neural network is a new powerful tool to predict the physicochem. parameters.

L21 ANSWER 40 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:174377 HCPLUS

DOCUMENT NUMBER: 136:300492

TITLE: Observation of the Decay  $K^- \rightarrow \pi^- \mu^+ \mu^-$  and Measurements of the Branching Ratios for  $K^\pm \rightarrow \pi^\pm \mu^+ \mu^-$

AUTHOR(S): Park, H. K.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Perroud, J. P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.; White, C.; White, S.; Zyla, P.

CORPORATE SOURCE: HyperCP Collaboration, University of Michigan, Ann Arbor, MI, 48109, USA

SOURCE: Physical Review Letters (2002), 88(11), 111801/1-111801/4

CODEN: PRLTAO; ISSN: 0031-9007

PUBLISHER: American Physical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Using data collected with the HyperCP (E871) spectrometer during the 1997 fixed-target run at Fermilab, we report the first observation of the decay  $K^- \rightarrow \pi^- \mu^+ \mu^-$  and new measurements of the branching ratios for  $K^\pm \rightarrow \pi^\pm \mu^+ \mu^-$ . By combining the branching ratios for the decays  $K^+ \rightarrow \pi^+ \mu^+ \mu^-$  and  $K^- \rightarrow \pi^- \mu^+ \mu^-$ , we measure  $\Gamma(K^\pm \rightarrow \pi^\pm \mu^+ \mu^-)/\Gamma(K^\pm \rightarrow \text{all}) = (9.8 \pm 1.0 \pm 0.5) \times 10^{-8}$ . The CP asymmetry between the rates of the two decay modes is  $[\Gamma(K^+ \rightarrow \pi^+ \mu^+ \mu^-) - \Gamma(K^- \rightarrow \pi^- \mu^+ \mu^-)]/[\Gamma(K^+ \rightarrow \pi^+ \mu^+ \mu^-) + \Gamma(K^- \rightarrow \pi^- \mu^+ \mu^-)] = -0.02 \pm 0.11 \pm 0.04$ .

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 41 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:141069 HCPLUS

DOCUMENT NUMBER: 136:173923

TITLE: Rare hyperon and kaon decays from HyperCP

AUTHOR(S): White, Christopher G.; Chan, A.; Chen, Y. C.; Ho, C.; Shen, J.; Teng, P. K.; Yu, C.; Yu, Z.; Choong, W. S.; Gidal, G.; Jones, T. D.; Luk, K. B.; Zyla, P.; Crisler, M.; James, C.; Volk, J.; Felix, J.; Moreno, G.; Sosa, M.; Burnstein, R. A.;

Chakravorty, A.; Kaplan, D. M.; Lederman, L. M.; Luebke, W.; Rajaram, D.; Rubin, H. A.; White, C. G.; White, S. L.; Leros, N.; Perroud, J.-P.; Gustafson, H. R.; Longo, M.; Lopez, F.; Park, H. K.; Clark, K.; Jenkins, M.; Dukes, E. C.; Durandet, C.; Holmstrom, T.; Huang, M.; Lu, L.; Nelson, K.

CORPORATE SOURCE: HyperCP (Fermilab E871) Collaboration, Physics Division, Illinois Institute of Technology, Chicago, IL, USA

SOURCE: International Journal of Modern Physics A: Particles and Fields, Gravitation, Cosmology, Nuclear Physics (2001), 16(Suppl. 1B), 687-689

CODEN: IMPAEF; ISSN: 0217-751X

PUBLISHER: World Scientific Publishing Co. Pte. Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Over 120 terabytes of data were collected during the 1997 and 1999 runs of Fermilab E871 (HyperCP). From these data we expect to reconstruct more than 1 billion cascade hyperon decays, 100 million charged kaon decays, and 10 million omega hyperon decays. These data provide new sensitivity to lepton number violation in hyperon decays, and independent confirmation of the flavor changing neutral current decay of a charged kaon to a pion and two muons.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 42 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:141068 HCPLUS

DOCUMENT NUMBER: 136:173922

TITLE: Search for direct CP violation in hyperon decays

AUTHOR(S): Zyla, P.; Burnstein, R. A.; Chakravorty, A.; Kaplan, D. M.; Lederman, L. M.; Luebke, W.; Rajaram, D.; Rubin, H. A.; White, C. G.; White, S. L.; Chan, A.; Chen, Y. C.; Ho, C.; Teng, P. K.; Choong, W. S.; Gidal, G.; Jones, T.; Luk, K. B.; Clark, K.; Jenkins, M.; Dukes, E. C.; Durandet, C.; Holmstrom, T.; Huang, M.; Lu, L.; Nelson, K.; Felix, J.; Moreno, G.; Sosa, M.; Gustafson, H. R.; Longo, M. J.; Lopez, F.; Park, H. K.; James, C.; Volk, J.; Leros, N.; Perroud, J. P.

CORPORATE SOURCE: Fermilab HyperCP Collaboration, Lawrence Berkeley National Laboratory, Berkeley, CA, 94720, USA

SOURCE: International Journal of Modern Physics A: Particles and Fields, Gravitation, Cosmology, Nuclear Physics (2001), 16(Suppl. 1B), 684-686

CODEN: IMPAEF; ISSN: 0217-751X

PUBLISHER: World Scientific Publishing Co. Pte. Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fermilab experiment E871, HyperCP, is designed to search for evidence of direct CP violation in cascade and Lambda hyperon decays. The asymmetry of the angular distribution of the proton in the Lambda helicity frame between  $\Xi^- \rightarrow \Lambda + \pi^-$ ,  $\Lambda \rightarrow p + \pi^-$  and their charge-conjugate decays, will be measured. During the 1997 and 1999 fixed target runs at Fermilab, the HyperCP collaboration collected billions of cascade and anti-cascade decays that would make it possible to probe this asymmetry at the  $10^{-4}$  statistical level. The status of the data anal. is described.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 43 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2001:908328 HCPLUS  
 DOCUMENT NUMBER: 136:59423  
 TITLE: Status report from the hyperCP experiment at Fermilab  
 AUTHOR(S): White, Sharon L.; Burnstein, R. A.; Chakravorty, A.;  
 Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Crisler, M.; Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Jones, T. D.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lopez, G.; Lu, L.; Luebke, W.; Luk, K.-B.; Nelson, K. S.; Park, H. K.; Perroud, J. P.; Rajaram, D.; Rubin, H. A.; Sheng, J.; Sosa, M.; Teng, P. K.; Turk, B.; Volk, J.; White, C. G.; Yu, C.; Yu, Z.; Zyla, P.  
 CORPORATE SOURCE: HyperCP collaboration, Department of Physics, Illinois Institute of Technology, Chicago, IL, 60616, USA  
 SOURCE: Kaon Physics, [Based on a Conference on Kaon Physics], Chicago, IL, United States, June 21-26, 1999 (2001), Meeting Date 1999, 453-460. Editor(s): Rosner, Jonathan L.; Weinstein, Bruce D. University of Chicago Press: Chicago, Ill.  
 CODEN: 69CCPY  
 DOCUMENT TYPE: Conference; General Review  
 LANGUAGE: English  
 AB A review of CP violation in hyperon decays is given, along with a description of the spectrometer, status of the anal., and future prospects. HyperCP (E871), a Fermilab experiment searching for direct CP violation in  $\Xi$  and  $\Lambda$  decays, collected over one billion - and + decays in 1997. A sensitivity of  $\approx 2 + 10^{-4}$  in  $A_{\Xi\Lambda} = (\alpha_{\Xi\Lambda} - \alpha_{\Xi\Lambda} + \alpha_{\Xi\Lambda} + \alpha_{\Xi\Lambda}) / (\alpha_{\Xi\Lambda} - \alpha_{\Xi\Lambda} + \alpha_{\Xi\Lambda} + \alpha_{\Xi\Lambda})$  is expected.  
 REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 44 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2001:766932 HCPLUS  
 DOCUMENT NUMBER: 135:323731  
 TITLE: Observation of the decay  $K^- \rightarrow \pi^- \mu^+ \mu^-$  and measurements of the branching ratios for  $K^\pm \rightarrow \pi^\pm \mu^+ \mu^-$   
 AUTHOR(S): Park, H. K.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gu, P.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, C. M.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lu, L.; Luebke, W.; Luk, K. B.; Nelson, K. S.; Perroud, J. P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.; White, C.; White, S.; Zyla, P.  
 CORPORATE SOURCE: HyperCP Collaboration, University of Michigan, Ann Arbor, MI, 48109, USA  
 SOURCE: Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2001) 1-4, arXiv:hep-ex/0110033, 16 Oct 2001  
 CODEN: LNHEFS  
 URL: <http://xxx.lanl.gov/pdf/hep-ex/0110033>  
 PUBLISHER: Los Alamos National Laboratory

DOCUMENT TYPE: Preprint  
 LANGUAGE: English  
 AB Using data collected with the HyperCP (E871) spectrometer during the 1997 fixed-target run at Fermilab, we report the first observation of the decay  $K^- \rightarrow \pi^- \mu^+ \mu^-$  and new measurements of the branching ratios for  $K_{\pm} \rightarrow \pi_{\pm} \mu^+ \mu^-$ . By combining the branching ratios for the decays  $K^+ \rightarrow \pi^+ \mu^+ \mu^-$  and  $K^- \rightarrow \pi^- \mu^+ \mu^-$ , we measured  $\Gamma(K_{\pm} \rightarrow \pi_{\pm} \mu^+ \mu^-) / \Gamma(K_{\pm} \rightarrow \text{all}) = (9.8 \pm 1.0 \pm 0.5) \times 10^{-8}$ . The CP asymmetry between the rates of the two decay modes is  $[\Gamma(K^+ \rightarrow \pi^+ \mu^+ \mu^-) - \Gamma(K^- \rightarrow \pi^- \mu^+ \mu^-)] / [\Gamma(K^+ \rightarrow \pi^+ \mu^+ \mu^-) + \Gamma(K^- \rightarrow \pi^- \mu^+ \mu^-)] = -0.02 \pm 0.11 \pm 0.04$ .

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 45 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2001:398799 HCPLUS  
 DOCUMENT NUMBER: 135:25717  
 TITLE: HyperCP (E871) experiment at Fermilab: search for direct CP violation in hyperon decays  
 AUTHOR(S): Leros, N.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, M.; Jones, T.; Kaplan, D. M.; Lederman, L. M.; Longo, M. J.; Lopez, F.; Lu, L. C.; Luebke, W.; Luk, K. B.; Moreno, G.; Nelson, K. S.; Park, H. K.; Perroud, J. P.; Rajaram, D.; Rubin, H. A.; Sosa, M.; Teng, P. K.; Turko, B.; Volk, J.; White, C.; White, S. L.; Zyla, P.  
 CORPORATE SOURCE: IPHE, University of Lausanne, Lausanne, 1015, Switz.  
 SOURCE: Nuclear Physics B, Proceedings Supplements (2001), 99B(CPconf2000), 211-219  
 CODEN: NPBSE7; ISSN: 0920-5632  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The Fermilab HyperCP experiment has accumulated the world's largest sample of  $\Xi^-$  and  $\Xi^0$  hyperon decays within two running periods in 1997 and 1999. The primary goal of the experiment is to search for direct CP violation in the decay sequences  $\Xi^- \rightarrow \Lambda \pi^- \rightarrow p \pi^- \pi^-$  and  $\Xi^0 \rightarrow \Xi^- \pi^+ \rightarrow \Xi^- \pi^+ \pi^+$ . A violation of CP would manifest itself as a difference between the angular distribution of the proton and the antiproton in the  $\Lambda$  and  $\Xi^0$  helicity frames. The amount of data is enough to reach a statistical sensitivity of  $1.4 \times 10^{-4}$  in the CP violating asymmetry  $A_{\Xi \Lambda} = (\alpha_{\Xi \Lambda} - \alpha_{\Xi^0 \Lambda}) / (\alpha_{\Xi \Lambda} + \alpha_{\Xi^0 \Lambda})$ . We present an anal. method used to take into account the slight differences in the production of the  $\Xi^-$  and  $\Xi^0$  samples. A preliminary result on  $A_{\Xi \Lambda}$  at the level of a few  $10^{-3}$  and based on a few percent of the 1997 data is presented.  
 REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 46 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2001:188338 HCPLUS  
 DOCUMENT NUMBER: 134:272375

TITLE: Examining CP symmetry in strange baryon decays  
AUTHOR(S): Luk, K. B.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Diehl, T.; Dukes, E. C.; Durandet, C.; Duryea, J.; Felix, J.; Gidal, G.; Guglielmo, G.; Gustafson, H. R.; Heller, K.; Ho, C.; Ho, P. M.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, M.; Johns, K.; Jones, T.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Lopez, F.; Longo, M. J.; Lu, L.; Luebke, W.; Nelson, K.; Park, H. K.; Perroud, J. P.; Rajaram, D.; Rameika, R.; Rubin, H. A.; Teige, S.; Teng, P. K.; Thomson, G.; Volks, J.; White, C. G.; White, S. L.; Zyla, P.

CORPORATE SOURCE: Fermilab E756 and HyperCP Collaborations, Department of Physics, Lawrence Berkeley National Laboratory, University of California and Physics Division, Berkeley, CA, 94720, USA

SOURCE: B Physics and CP Violation, Proceedings of the International Conference, 3rd, Taipei, Taiwan, Dec. 3-7, 1999 (2000), Meeting Date 1999, 434-442. Editor(s): Cheng, Hai-Yang; Hou, Wei-Shu. World Scientific Publishing Co. Pte. Ltd.: Singapore, Singapore.

CODEN: 69BAPN

DOCUMENT TYPE: Conference

LANGUAGE: English

AB Non-conservation of CP symmetry can manifest itself in non-leptonic hyperon decays as a difference in the decay parameter between the strange-baryon decay and its charge conjugate. By comparing the decay distribution in the  $\Lambda$  helicity frame for the decay sequence  $\Lambda \rightarrow \Lambda\pi^-$ ,  $\Lambda \rightarrow p\pi^-$  with that of  $\Lambda^+$  decay, E756 at Fermilab did not observe any CP-odd effect at the  $10^{-2}$  level. The status of a follow-up experiment, HyperCP (FNAL E871), to search for CP violation in charged  $\Lambda$  decay with a sensitivity of  $10^{-4}$  is also presented.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 47 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:898490 HCPLUS

DOCUMENT NUMBER: 134:184392

TITLE: Search for direct CP violation in decays of hyperons

AUTHOR(S): Chen, Y. C.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, M.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lopez, G.; Luebke, W.; Luk, K. B.; Nelson, K.; Perroud, J. P.; Rajaram, D.; Rubin, H. A.; Teng, P. K.; Volk, J.; White, C.; White, S. L.; Zyla, P.

CORPORATE SOURCE: Academia Sinica, Taipei, 11529, Taiwan

SOURCE: Hadron Structure '98, Proceedings of the International Conference, Kosice, Slovakia, Sept. 7-13, 1998 (1998), 447-454. Editor(s): Bruncko, Dusan; Strizenec, Pavol. Slovak Academy of Sciences, Institute of Experimental Physics: Kosice, Slovakia.

CODEN: 69AMYT

DOCUMENT TYPE: Conference

LANGUAGE: English

AB The E871 (HyperCP) experiment at FNAL is searching for direct CP violation in decays of  $\Xi$ -(- $\Xi$ +) and  $\Lambda$ -(- $\Lambda$ ) by comparing their decay parameters,  $\alpha\Xi\alpha\Lambda$  (- $\alpha\Xi\alpha\Lambda$ ). An asymmetry parameter, A, is defined based on these parameters. With the data taken in 1997 we expect to have a sensitivity of  $\approx 2 + 10^{-4}$  in A. In the 1999 run we will take four times more data which will improve the sensitivity to  $\approx 1 + 10^{-4}$ .

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 48 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:836542 HCPLUS

TITLE: A high-throughput data acquisition system for the HyperCP experiment

AUTHOR(S): Chen, Y. C.; Cheng, K. C.; Choong, W.-S.; Dukes, E. C.; Gu, P.; Ho, C.; James, C.; Kaplan, D. M.; Luebke, W. R.; Luk, K. B.; Nelson, K.; Rubin, H. A.; Sheng, J. P.; White, C. G.; Yu, C. S.

CORPORATE SOURCE: Institute of Physics, Academia Sinica, Nankang, Taipei, Taiwan

SOURCE: Nuclear Instruments & Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors, and Associated Equipment (2000), 455(2), 424-432

CODEN: NIMAER; ISSN: 0168-9002 Elsevier Science B.V.

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The data acquisition system of the HyperCP experiment at Fermilab recorded about 50 TB of data on 12 000 tapes in 1997. The system recorded data at a sustained throughput of 12 MB/s typically and was capable of a maximum rate of 16 MB/s. The front-end electronics systems read 20 000 channels and achieved a typical readout dead time of about 3  $\mu$ s per event, allowing operation at a trigger rate of 75 kHz with less than 30% dead time.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 49 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:428647 HCPLUS

DOCUMENT NUMBER: 133:35119

TITLE: Examining CP symmetry in strange baryon decays

AUTHOR(S): Luk, K. B.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Diehl, T.; Dukes, E. C.; Durandet, C.; Duryea, J.; Felix, J.; Gidal, G.; Guglielmo, G.; Gustafson, H. R.; Heller, K.; Ho, C.; Ho, P. M.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, M.; Johns, K.; Jones, T.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Lopez, F.; Longo, M. J.; Lu, L.; Luebke, W.; Nelson, K.; Park, H. K.; Perroud, J. P.; Rajaram, D.; Rameika, R.; Rubin, H. A.; Teige, S.; Teng, P. K.; Thomson, G.; Volks, J.; White, C. G.; White, S. L.; Zyla, P.

CORPORATE SOURCE: Fermilab E756 Collaboration, Lawrence Berkeley National Laboratory, Berkeley, CA, 94720, USA; Fermilab HyperCP Collaboration

SOURCE: Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2000) 1-9, arXiv:hep-ex/0005004, 31 May 2000

CODEN: LNHEFS

URL: <http://xxx.lanl.gov/pdf/hep-ex/0005004>

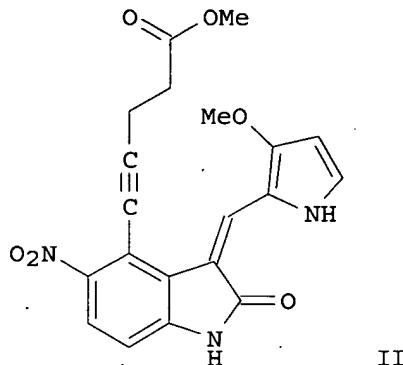
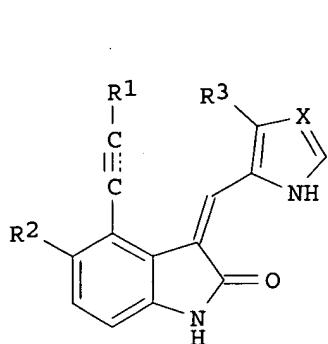
PUBLISHER: Los Alamos National Laboratory  
 DOCUMENT TYPE: Preprint  
 LANGUAGE: English  
 AB Non-conservation of CP symmetry can manifest itself in non-leptonic hyperon decays as a difference in the decay parameter between the strange-baryon decay and its charge conjugate. By comparing the decay distribution in the  $\Lambda$  helicity frame for the decay sequence  $\Xi \rightarrow \Lambda \rightarrow p\pi$  with that of  $\Xi^+$  decay, E756 at Fermilab did not observe any CP-odd effect at the 10-2 level. The status of a follow-up experiment, HyperCP (FNAL E871), to search for CP violation in charged  $\Xi$ - $\Lambda$  decay with a sensitivity of 10-4 is also presented.

L21 ANSWER 50 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2000:421131 HCPLUS  
 DOCUMENT NUMBER: 133:43432  
 TITLE: Preparation of 4-alkynyl-3-(pyrrolylmethylene)-2-oxoindoles as inhibitors of cyclin-dependent kinases, in particular CDK2  
 INVENTOR(S): Chen, Yi; Corbett, Wendy Lea; Dermatakis, Apostolos; Liu, Jin-jun; Luk, Kin-chun; Mahaney, Paige E.; Mischke, Steven Gregory  
 PATENT ASSIGNEE(S): F. Hoffmann-La Roche Ag, Switz.  
 SOURCE: PCT Int. Appl., 170 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000035908	A1	20000622	WO 1999-EP9624	19991208
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2354873	AA	20000622	CA 1999-2354873	19991208
BR 9916327	A	20010918	BR 1999-16327	19991208
EP 1157019	A1	20011128	EP 1999-963422	19991208
EP 1157019	B1	20030319		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101860	T2	20011221	TR 2001-200101860	19991208
JP 2002532492	T2	20021002	JP 2000-588168	19991208
AT 234830	E	20030415	AT 1999-963422	19991208
ES 2192877	T3	20031016	ES 1999-963422	19991208
AU 770375	B2	20040219	AU 2000-19727	19991208
US 6130239	A	20001010	US 1999-464502	19991215
TW 550262	B	20030901	TW 1999-88122068	19991216
US 6252086	B1	20010626	US 2000-549864	20000414
US 6303793	B1	20011016	US 2000-566054	20000505
ZA 2001004275	A	20020826	ZA 2001-4275	20010524
PRIORITY APPLN. INFO.:			US 1998-112591P	P 19981217
			US 1999-149073P	P 19990816
			WO 1999-EP9624	W 19991208

OTHER SOURCE(S):  
GI

MARPAT 133:43432



AB The title compds. (I) [wherein R1 = H, acyl, carboxy, carbamido, (un)substituted (cyclo)alkyl, or heterocyclyl; R2 = H, alkoxy, acyl(oxy), carboxy, carbamido, halogen, NO<sub>2</sub>, CN, sulfamido, perfluoroalkyl, alkyl, etc.; R3 = H, alkoxy, acyl(oxy), carboxy, carbamido, halogen, CN, amino, perfluoroalkyl, alkyl, etc.; X = N or (un)substituted C] and their intermediates and analogs were prepared by reaction of alkynes with 4-halo-2-oxoindoles. I inhibit cyclin-dependent kinases (CDKs), especially CDK2, and are useful as anti-proliferative agents in the treatment or control of cell proliferative disorders, in particular breast and colon tumors. For example, Me 4-pentyanoate was coupled with (Z)-4-bromo-1,3-dihydro-3-[(3-methoxy-1H-pyrrol-2-yl)methylene]-5-nitro-2H-indole-2-one (preparation given) using (Ph<sub>3</sub>P)<sub>2</sub>PdCl<sub>2</sub> and CuI as catalysts in DMF and TEA to give (Z)-II in 72% yield. In a CDK2 flash plate assay, II inhibited CDK2 by > 90% at concns. of  $\leq$  1.0  $\mu$ M. Representative compds. of the invention were tested in cell-based assays against epithelial breast carcinoma line MDA-MB435 and colon carcinoma line SW480 and gave IC<sub>50</sub> values of < 3.5  $\mu$ M and < 1.0  $\mu$ M, resp. Formulations for tablets, capsules, and injection solution/emulsion preps. are also included.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 51 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:41137 HCPLUS

DOCUMENT NUMBER: 132:142963

TITLE: Search for flavor-changing neutral currents and lepton-family-number violation in two-body D0 decays

AUTHOR(S): Pripstein, D.; Gidal, G.; Ho, P. M.; Kowitt, M. S.; Luk, K. B.; Isenhower, L. D.; Sadler, M. E.; Schnathorst, R.; Lederman, L. M.; Schub, M. H.; Brown, C. N.; Cooper, W. E.; Gounder, K. N.; Mishra, C. S.; Carey, T. A.; Jansen, D. M.; Jeppesen, R. G.; Kapustinsky, J. S.; Lane, D. W.; Leitch, M. J.; Lillberg, J. W.; McGaughey, P. L.; Moss, J. M.; Peng, J. C.; Kaplan, D. M.; Luebke, W. R.; Preston, R. S.; Sa, J.; Tanikella, V.; Childers, R. L.; Darden, C. W.; Wilson, J. R.; Kiang, G. C.; Teng, P. K.; Chen,

Y. C.

CORPORATE SOURCE: Lawrence Berkeley Laboratory and Department of Physics, Physics Division, University of California, Berkeley, CA, 94720, USA

SOURCE: Physical Review D: Particles and Fields (2000), 61(3), 032005/1-032005/17

CODEN: PRVDAQ; ISSN: 0556-2821

PUBLISHER: American Physical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We present the results of a search for the three neutral charm decays  $D^0 \rightarrow \mu^+ e^-$ ,  $D^0 \rightarrow \mu^+ \mu^-$ , and  $D^0 \rightarrow e^+ e^-$ . This study was based on data collected in Experiment 789 at the Fermi National Accelerator Laboratory using 800 GeV/c proton-Au and proton-Be interactions.

No evidence is found for any of the decays. Upper limits on the branching ratios, at the 90% confidence level, of  $1.56 \pm 10^{-5}$  for  $D^0 \rightarrow \mu^+ \mu^-$ ,  $8.19 \pm 10^{-6}$  for  $D^0 \rightarrow e^+ e^-$  and  $1.72 \pm 10^{-5}$  for  $D^0 \rightarrow \mu^+ e^-$  are obtained.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 52 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1999:290011 HCPLUS

DOCUMENT NUMBER: 131:10171

TITLE: CP violation in strange baryon decays: a report from Fermilab experiment 871

AUTHOR(S): James, C.; Burnstein, R. A.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Dukes, E. C.; Durandet, C.; Felix, J.; Fuzesy, R.; Gidal, G.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; Jenkins, M.; Kaplan, D. M.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Luebke, W.; Luk, K. B.; Moreno, G.; Nelson, K.; Papavassiliou, V.; Perroud, J. P.; Rajaram, D.; Rubin, H. A.; Sosa, M.; Teng, P. K.; Turko, B.; Volk, J.; White, C. G.; White, S. L.; Zyla, P.

CORPORATE SOURCE: Fermi National Accelerator Laboratory, Batavia, IL, 60510, USA

SOURCE: AIP Conference Proceedings (1999), 459(Heavy Quarks at Fixed Target), 107-115  
CODEN: APCPCS; ISSN: 0094-243X

PUBLISHER: American Institute of Physics

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB Fermilab experiment 871, HyperCP, is a search for direct CP violation in  $\Xi$  and  $\Lambda$  hyperon decays. A nonzero value in the asymmetry parameter  $A$ , defined in terms of the decay parameter products  $\alpha \Xi \alpha \Lambda$  and  $\alpha \cdot h \bar{v} \in \Xi \alpha \cdot h \bar{v} \in \Lambda$ , would be unambiguous evidence for direct CP violation. The first data taking run finished at the end of 1997 and accumulated over one billion  $\Xi^-$  and  $\Lambda \bar{v} \in \Xi^-$  decays. A sensitivity in  $A$  of  $\approx 10^{-4}$  is expected. A review of CP violation in hyperon decays is given, the HyperCP detector is described, and the status of the data anal. is discussed. 17 Refs.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 53 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1998:639244 HCPLUS

DOCUMENT NUMBER: 129:282101  
 TITLE: Search for direct CP violation in  $\Lambda$  and  $\Xi$  hyperon decays  
 AUTHOR(S): White, C. G.; Burnstein, R. A.; Carmack, M.; Chakravorty, A.; Chan, A.; Chen, Y. C.; Choong, W. S.; Clark, K.; Crisler, M.; Drapala, J.; Dukes, E. C.; Durandet, C.; Felix, J.; Gidal, G.; Gustafson, H. R.; Ho, C.; Holmstrom, T.; Huang, M.; James, C.; Jenkins, M.; Kaplan, D. M.; Kou, Z.; Lederman, L. M.; Leros, N.; Longo, M. J.; Lopez, F.; Lopez, G.; Luebke, W.; Luk, K. B.; Nelson, K.; Papavassiliou, V.; Perroud, J. P.; Rajaram, D.; Rubin, H. A.; Saleh, N.; Sheng, J.; Sosa, M.; Teng, P. K.; Turko, B.; Volk, J.; White, S. L.; Yu, C.; Yu, Z.; Zyla, P.  
 CORPORATE SOURCE: Illinois Institute of Technology, Chicago, IL, 60616, USA  
 SOURCE: Nuclear Physics B, Proceedings Supplements (1999), 71, 451-456  
 CODEN: NPBSE7; ISSN: 0920-5632  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A sensitive search for direct CP violation in  $\Xi^-$  (.hivin. $\Xi^+$ ) and  $\Lambda$  (.hivin. $\Lambda$ ) decays is underway at FNAL. Experiment E871 (HyperCP) intends to perform a precision measurement of the angular distribution of protons (antiprotons) with respect to the helicity axis in the rest frame of the  $\Lambda$  (.hivin. $\Lambda$ ). The slopes of these distributions give the decay parameters  $\alpha_{\Xi}\alpha_{\Lambda}$  and  $\alpha_{\Xi}\alpha_{\Lambda}$ . An asymmetry parameter A in terms of these decay parameters has been defined for which a nonzero value would be unambiguous evidence for direct CP violation. Theor. predictions for A range from no asymmetry up to .apprx.10-3. HyperCP expects to measure A with an uncertainty of .apprx. 2 + 10-4.  
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 54 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1997:40481 HCPLUS  
 DOCUMENT NUMBER: 126:71402  
 TITLE: Lung injury induced by hydrogen peroxide injection  
 AUTHOR(S): Sato, Shigeru; Jia, Yu-Zhi; Liu, Er-Dong; Liu, Jian-Jun; Aihara, Kaoru  
 CORPORATE SOURCE: Central Inst. for Electron Microscopic Researches, Nippon Medical School, Tokyo, 113, Japan  
 SOURCE: Nippon Kaimen Igakkai Zasshi (1996), 27(1-2), 99-109  
 CODEN: NKIZDR; ISSN: 0288-8262  
 PUBLISHER: Nippon Kaimen Igakkai  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 AB Rat lung was examined after hydrogen peroxide injection through the tail vein by light and electron microscopy. Ten minutes after injection of hydrogen peroxide, there was dilation of the capillaries. Thirty minutes after injection, pulmonary edema and perivascular edema were seen. Six hours after injection, pulmonary edema and focal atelectasis were seen. One day after injection, markedly focal atelectasis was seen. But, pulmonary edema had disappeared. Apparently, hydrogen peroxide is the causative agent of pulmonary edema.

L21 ANSWER 55 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:624586 HCPLUS  
 DOCUMENT NUMBER: 121:224586  
 TITLE: Equilibrium Constants for the Binding of Indium(III)  
 to Human Serum Transferrin  
 AUTHOR(S): Harris, Wesley R.; Chen, Yong;  
 Wein, Kim  
 CORPORATE SOURCE: Department of Chemistry, University of Missouri St.  
 Louis, St. Louis, MO, 63121, USA  
 SOURCE: Inorganic Chemistry (1994), 33(22), 4991-98  
 CODEN: INOCAJ; ISSN: 0020-1669  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Equilibrium consts. have been determined for the binding of In<sup>3+</sup> to the two specific

metal-binding sites of human serum transferrin. Nitrilotriacetic acid (NTA) was used as a competitive low mol. weight chelating agent. Prior to conducting the protein studies, a new set of equilibrium consts. describing the indium-NTA system were determined by a combination of potentiometric and spectrophotometric techniques. The indium-NTA system is described by three equilibrium consts.:  $\log \beta_{110} = 13.81 \pm 0.05$ ,  $\log \beta_{120} = 23.70 \pm 0.09$ , and  $\log \beta_{121} = 26.57 \pm 0.07$ . Indium binding consts. for transferrin were measured by difference UV spectroscopy at 25 °C in pH 7.4 solns. of 0.1 M N-(2-hydroxyethyl)piperazine-N'-2-ethanesulfonic acid which also contained 5 mM sodium bicarbonate. The observed binding consts. are  $\log K1^* = 18.52 \pm 0.16$  and  $\log K2^* = 16.64 \pm 0.50$ . These have been corrected to carbonate-independent metal binding consts. of  $\log K1M = 18.74$  and  $\log K2M = 16.86$ . These consts. are substantially smaller than previously reported values for the In-transferrin binding consts. and are smaller than the transferrin binding consts. for either Ga<sup>3+</sup> or Fe<sup>3+</sup>. However, when hydrolysis of the free metal ions is taken into account, the more extensive hydrolysis of the Ga<sup>3+</sup> ion at pH 7.4 leads to a reversal in stability such that In<sup>3+</sup> is bound more strongly to transferrin at physiol. pH. Linear free energy relationships (LFER) for the complexation of Fe<sup>3+</sup> and In<sup>3+</sup> were constructed to evaluate the consistency between the transferrin results and the stability consts. for Fe<sup>3+</sup> and In<sup>3+</sup> with low mol. weight (LMW) ligands. However, the linear free energy relationships between Fe<sup>3+</sup> and In<sup>3+</sup> show unusual differences among different types of low mol. weight ligands, and there is no conclusive fit of the In-transferrin binding consts. to the LMW LFER.

L21 ANSWER 56 OF 58 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1994:404328 HCPLUS  
 DOCUMENT NUMBER: 121:4328  
 TITLE: Electron paramagnetic resonance and difference ultraviolet studies of Mn<sup>2+</sup> binding to serum transferrin  
 AUTHOR(S): Harris, Wesley R.; Chen, Yong  
 CORPORATE SOURCE: Dep. Chem., Univ. Missouri, St. Louis, MO, USA  
 SOURCE: Journal of Inorganic Biochemistry (1994), 54(1), 1-19  
 CODEN: JIBIDJ; ISSN: 0162-0134  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Serum transferrin is the mammalian protein whose normal function is to transport ferric ions through the blood among sites of absorption, storage, and utilization. It has two specific metal-binding sites that bind a variety of metal ions in addition to ferric ion. The macroscopic equilibrium constant for the binding of the first equivalent of Mn<sup>2+</sup> to apotransferrin has been determined by EPR spectroscopy to be  $\log KM1 = 4.06$  at pH 7.4 in 0.1M HEPES. An equilibrium constant for nonspecific binding of Mn to

apotransferrin of  $\log K_s = 2.93$  has also been obtained by using EPR. Binding of  $Mn^{2+}$  to apotransferrin and to both C- and N-terminal nonferric transferrin has also been studied by difference UV spectroscopy. The second stepwise macroscopic equilibrium constant for the formation of  $Mn^{2+}Tf$  is  $\log K_{M2} = 2.96$ . The site-specific microconsts. for  $Mn^{2+}$  binding are  $\log K_N = 3.13$  for the N-terminal site and  $\log K_C = 3.80$  for the C-terminal site. There does not appear to be any significant cooperativity between the two sites with respect to metal binding. An equilibrium model for the speciation of  $Mn^{2+}$  in serum has been developed which ests. that almost 90% of  $Mn^{2+}$  is bound to serum proteins, but only apprx. 1% is bound to transferrin. The weak binding of  $Mn^{2+}$  to apotransferrin and the obvious inability of transferrin to compete with albumin indicates that the appearance of Mn-transferrin as a major serum species in vivo must involve oxidation of the metal to form the much more stable  $Mn^{3+}$ -transferrin complex. The computer model confirms that albumin has a sufficient binding affinity to complex most of the  $Mn^{(II)}$  in serum in competition with the common low mol. weight ligands in serum. However, there is insufficient data to rule out the possibility that some other protein, such as  $\alpha_2$ -macroglobulin, may compete with albumin for  $Mn^{(II)}$ .

L21 ANSWER 57 OF 58 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:628629 HCAPLUS  
 DOCUMENT NUMBER: 117:228629  
 TITLE: Difference ultraviolet spectroscopic studies on the binding of lanthanides to human serum transferrin  
 AUTHOR(S): Harris, Wesley R.; Chen, Yong  
 CORPORATE SOURCE: Dep. Chem., Univ. Missouri, St. Louis, MO, 63121, USA  
 SOURCE: Inorganic Chemistry (1992), 31(24), 5001-6  
 CODEN: INOCAJ; ISSN: 0020-1669

DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Apotransferrin in 0.1 M N-(2-hydroxyethyl)piperazine-N'-2-ethanesulfonic acid at 25° and pH 7.4 has been titrated with  $Pr^{3+}$ ,  $Gd^{3+}$ ,  $Tb^{3+}$ ,  $Ho^{3+}$ ,  $Er^{3+}$ , and  $Lu^{3+}$ , and the metal binding has been monitored by difference UV spectroscopy. Molar absorptivities for the lanthanide-transferrin complexes of about 20,000 M<sup>-1</sup> cm<sup>-1</sup> per binding site have been calculated from the initial slopes of the titration curves. There is little change in molar absorptivity as a function of ionic radius between Lu and Gd. However, there is a consistent decrease in the number of metal ions bound at saturation from 1.9 for the smallest ion,  $Lu^{3+}$ , to 1.6 for  $Gd^{3+}$ . This decrease is attributed to competitive binding of the larger lanthanide ions by the ambient bicarbonate in the buffer. Titrns. of both forms of monoferric transferrin indicate that lanthanide binding is consistently stronger at the vacant C-terminal binding site of N-terminal monoferric transferrin. Sequential macroscopic equilibrium consts. of  $\log K1^* = 7.96$  and  $\log K2^* = 5.94$  have been determined for the binding of  $Gd^{3+}$  to the two transferrin metal-binding sites. The separation of 2.0 log units between the successive binding consts. is unusually large compared to results for d-block metal ions.

L21 ANSWER 58 OF 58 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:500461 HCAPLUS  
 DOCUMENT NUMBER: 115:100461  
 TITLE: Stability constants for dimercaptosuccinic acid with bismuth(III), zinc(II), and lead(II)  
 AUTHOR(S): Harris, Wesley R.; Chen, Yong;  
 Stenback, Jana; Shah, Bharat  
 CORPORATE SOURCE: Dep. Chem., Univ. Missouri, St. Louis, MO, 63121, USA  
 SOURCE: Journal of Coordination Chemistry (1991), 23(1-4), 173-86

CODEN: JCCMBQ; ISSN: 0095-8972

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Stability consts. for the complexation of Zn(II), Pb(II), and Bi(III) by the vicinal dithiolate chelating agent meso-dimercaptosuccinic acid (DMSA) were determined by a combination of potentiometric titration and spectrophotometric competition at 25° and 0.1 M ionic strength. The spectrophotometric studies use the shifts in the UV bands of the thiol groups to quantitate metal binding to DMSA in the presence of competitive aminocarboxylic acids. Bismuth(III) forms a bis(DMSA) chelate with an exceptionally high stability constant of 1043.87. This complex undergoes a series of protonations over the pH range 10 to 2, but there appears to be no measureable dissociation of ligand over this pH range. This zinc-DMSA system is dominated by a Zn2(DMSA)2 dimer, which has a protonation constant of 106 and dissociates completely at lower pH. No more than 20% of total zinc exists as a monomeric complex ppts. at pH < 6.5. Speciation calcns. were used to evaluate the potential competition from serum zinc to the binding of Pb2+ and Bi3+ by DMSA. The results indicate that DMSA should be relatively effective for the in vivo chelation of both Bi3+ and Pb2+.

```
=> => d stat que 123 nos
L1      STR
L3      69 SEA FILE=REGISTRY SSS FUL L1
L4      3 SEA FILE=HCAPLUS ABB=ON PLU=ON L3
L5      96 SEA FILE=HCAPLUS ABB=ON PLU=ON ("DANIEWSKI A"/AU OR "DANIEWSKI A R"/AU OR "DANIEWSKI A ROBERT"/AU OR "DANIEWSKI ANDREJ R"/AU OR "DANIEWSKI ANDRZEJ"/AU OR "DANIEWSKI ANDRZEJ R"/AU OR "DANIEWSKI ANDRZEJ ROBERT"/AU)
L6      10 SEA FILE=HCAPLUS ABB=ON PLU=ON "MICHOUUD CHRISTOPHE"/AU
L7      9 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 NOT L4
L8      1527 SEA FILE=HCAPLUS ABB=ON PLU=ON HARRIS W?/AU
L9      837 SEA FILE=HCAPLUS ABB=ON PLU=ON LIU E?/AU
L10     25588 SEA FILE=HCAPLUS ABB=ON PLU=ON LIU J?/AU
L11     226 SEA FILE=HCAPLUS ABB=ON PLU=ON LUK K?/AU
L12     31754 SEA FILE=HCAPLUS ABB=ON PLU=ON CHEN Y?/AU
L13     1 SEA FILE=HCAPLUS ABB=ON PLU=ON L5 AND L8 AND L9 AND L10 AND L11 AND L12
L14     0 SEA FILE=HCAPLUS ABB=ON PLU=ON L13 NOT (L7 OR L4)
L15     0 SEA FILE=HCAPLUS ABB=ON PLU=ON (L5 AND (L8 OR L9 OR L10 OR L11 OR L12)) NOT (L7 OR L4)
L16     4 SEA FILE=HCAPLUS ABB=ON PLU=ON (L8 AND (L9 OR L10 OR L11 OR L12)) NOT (L7 OR L4)
L17     12 SEA FILE=HCAPLUS ABB=ON PLU=ON (L9 AND (L10 OR L11 OR L12)) NOT (L7 OR L4 OR L16)
L18     7 SEA FILE=HCAPLUS ABB=ON PLU=ON (L10 AND L11) NOT (L7 OR L4 OR L16 OR L17)
L19     653 SEA FILE=HCAPLUS ABB=ON PLU=ON (L10 AND L12) NOT (L7 OR L4 OR L16 OR L17 OR L18)
L20     35 SEA FILE=HCAPLUS ABB=ON PLU=ON (L11 AND L12) NOT (L7 OR L4 OR L16 OR L17 OR L18)
L21     58 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 OR L15 OR L16 OR L17 OR L18 OR L20
L22     653 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 NOT L21
L23     30 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND (?PROLIFER? OR ?CANCER? OR ?NEOPLAS? OR ?TUMOR? OR ?MALAG?)
```

=>  
=>

=> d ibib abs 123 1-30

L23 ANSWER 1 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:328846 HCPLUS  
 DOCUMENT NUMBER: 142:371603  
 TITLE: Combined Genetic Assessment of Transforming Growth Factor- $\beta$  Signaling Pathway Variants May Predict Breast **Cancer** Risk  
 AUTHOR(S): Kaklamani, Virginia G.; Baddi, Lisa; Liu, Junjian; Rosman, Diana; Phukan, Sharbani; Bradley, Ciaran; Hegarty, Chris; McDaniel, Bree; Rademaker, Alfred; Oddoux, Carole; Ostrer, Harry; Michel, Loren S.; Huang, Helen; Chen, Yu; Ahsan, Habibul; Offit, Kenneth; Pasche, Boris  
 CORPORATE SOURCE: Cancer Genetics Program, Division of Hematology/Oncology, Department of Medicine Feinberg School of Medicine and Robert H. Lurie Comprehensive Cancer Center, Northwestern Univ., Chicago, IL, USA  
 SOURCE: Cancer Research (2005), 65(8), 3454-3461  
 CODEN: CNREA8; ISSN: 0008-5472  
 PUBLISHER: American Association for Cancer Research  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB There is growing evidence that common variants of the transforming growth factor- $\beta$  (TGF- $\beta$ ) signaling pathway may modify breast **cancer** risk. In vitro studies have shown that some variants increase TGF- $\beta$  signaling, whereas others have an opposite effect. We tested the hypothesis that a combined genetic assessment of two well-characterized variants may predict breast **cancer** risk. Consecutive patients (n = 660) with breast **cancer** from the Memorial Sloan-Kettering **Cancer** Center (New York, NY) and healthy females (n = 880) from New York City were genotyped for the hypomorphic TGFB1\*6A allele and for the TGFB1 T29C variant that results in increased TGF- $\beta$  circulating levels. Cases and controls were of similar ethnicity and geog. location. Thirty percent of cases were identified as high or low TGF- $\beta$  signalers based on TGFB1 and TGFB1 genotypes. There was a significantly higher proportion of high signalers (TGFB1/TGFB1 and TGFB1\*CC) among controls (21.6%) than cases (15.7%; P = 0.003). The odds ratio [OR; 95% confidence interval (95% CI)] for individuals with the lowest expected TGF- $\beta$  signaling level (TGFB1\*TT or TGFB1\*TC and TGFB1\*6A) was 1.69 (1.08-2.66) when compared with individuals with the highest expected TGF-signaling levels. Breast **cancer** risk incurred by low signalers was most pronounced among women after age 50 years (OR, 2.05; 95% CI, 1.01-4.16). TGFB1\*6A was associated with a significantly increased risk for breast **cancer** (OR, 1.46; 95% CI, 1.04-2.06), but the TGFB1\*CC genotype was not associated with any appreciable risk (OR, 0.89; 95% CI, 0.63-1.21). TGFB1\*6A effect was most pronounced among women diagnosed after age 50 years (OR, 2.20; 95% CI, 1.25-3.87). This is the first study assessing the TGF- $\beta$  signaling pathway through two common and functionally relevant TGFB1 and TGFB1 variants. This approach may predict breast **cancer** risk in a large subset of the population.  
 REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 2 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:285886 HCPLUS  
 DOCUMENT NUMBER: 142:367623  
 TITLE: Effect of fluorine with different concentrations on

AUTHOR(S) : Chen, Yanping; Wang, Changsong; Liu, Jialiu; Yu, Yanni; Tang, Junjie

CORPORATE SOURCE: Third Group of Administrative Brigade of Postgraduate, Third Military Medical University of Chinese PLA, Chongqing, 400038, Peop. Rep. China

SOURCE: Zhongguo Linchuang Kangfu (2004), 8(32), 7124-7126

CODEN: ZLKHAH; ISSN: 1671-5926

PUBLISHER: Zhongguo Linchuang Kangfu Zazhishe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The model of osteoblasts cultured in vitro was established and the effect of fluorine at different concns. on the **proliferation** of osteoblasts was studied, so as to provide an exptl. basis for treating osteoporosis with fluorine. Osteoblasts were cultured by using ribs in young rabbits, and then purified and appraised. They were dealt with various concns. of fluorine (20, 160, 240 and 400  $\mu\text{mol/L}$ ). The **proliferation** of osteoblasts was detected with MTT method, and the changes of cell phase and apoptosis were measured with flow cytometry. Low concentration fluorine (20  $\mu\text{mol/L}$ ) promoted the **proliferation** of osteoblasts in vitro obviously (the numerical value of A after 24 h was  $0.089 \pm 0.012$ ,  $P < 0.01$ ), and the cells in S and G2/M phase increased markedly, while no apoptosis of osteoblasts was found. The **proliferation** of osteoblasts was inhibited by fluorine at high concentration (160, 240 and 400  $\mu\text{mol/L}$ ) (the numerical values of A after 24 h were  $0.055 \pm 0.010$ ,  $0.054 \pm 0.006$ ,  $0.023 \pm 0.010$ , resp.,  $P < 0.01$ ). The apoptosis of osteoblasts was induced ( $9.53 \pm 2.10$ ,  $24.43 \pm 3.03$ ,  $P < 0.01$  and  $32.63 \pm 1.17$ ,  $P < 0.05$ ), and the cells in the G2/M phase decreased significantly. Low concentration of fluoride could promote the **proliferation** of osteoblasts, while high concentration fluoride could inhibit the **proliferation** of osteoblasts, induce the apoptosis, and inhibit cells transformation from S phase to G2/M phase. Low concentration of fluoride could be used for the treatment of osteoporosis.

L23 ANSWER 3 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:166530 HCPLUS

DOCUMENT NUMBER: 142:238300

TITLE: The complement inhibitory protein DAF (CD55) suppresses T cell immunity in vivo

AUTHOR(S) : Liu, Jianuo; Miwa, Takashi; Hilliard, Brendan; Chen, Youhai; Lambris, John D.; Wells, Andrew D.; Song, Wen-Chao

CORPORATE SOURCE: Institute for Translational Medicine and Therapeutics and Department of Pharmacology, University of Pennsylvania School of Medicine, Philadelphia, PA, 19104, USA

SOURCE: Journal of Experimental Medicine (2005), 201(4), 567-577

CODEN: JEMEAV; ISSN: 0022-1007

PUBLISHER: Rockefeller University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Decay-accelerating factor ([DAF] CD55) is a glycosylphosphatidylinositol-anchored membrane inhibitor of complement with broad clin. relevance. Here, we establish an addnl. and unexpected role for DAF in the suppression of adaptive immune responses in vivo. In both C57BL/6 and BALB/c mice, deficiency of the Daf1 gene, which encodes the murine homolog of human DAF, significantly enhanced T cell responses to active immunization. This phenotype was characterized by hypersecretion of interferon (IFN)- $\gamma$  and interleukin (IL)-2, as well as

down-regulation of the inhibitory cytokine IL-10 during antigen restimulation of lymphocytes in vitro. Compared with wild-type mice, Daf1-/- mice also displayed markedly exacerbated disease progression and pathol. in a T cell-dependent exptl. autoimmune encephalomyelitis (EAE) model. However, disabling the complement system in Daf1-/- mice normalized T cell secretion of IFN- $\gamma$  and IL-2 and attenuated disease severity in the EAE model. These findings establish a critical link between complement and T cell immunity and have implications for the role of DAF and complement in organ transplantation, **tumor** evasion, and vaccine development.

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 4 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:925115 HCPLUS  
 DOCUMENT NUMBER: 141:347571  
 TITLE: No major association between TGFBR1\*6A and prostate **cancer**  
 AUTHOR(S): Kaklamani, Virginia; Baddi, Lisa; Rosman, Diana; Liu, Junjian; Ellis, Nathan; Oddoux, Carole; Ostrer, Harry; Chen, Yu; Ahsan, Habibul; Offit, Kenneth; Pasche, Boris  
 CORPORATE SOURCE: Cancer Genetics Program, Division of Hematology/Oncology, Department of Medicine and Robert H. Lurie Comprehensive Cancer Center, Feinberg School of Medicine, Northwestern University, Chicago, IL, USA  
 SOURCE: BMC Genetics (2004), 5, No pp. given  
 CODEN: BGMEDS; ISSN: 1471-2156  
 URL: <http://www.biomedcentral.com/content/pdf/1471-2156-5-28.pdf>

PUBLISHER: BioMed Central Ltd.  
 DOCUMENT TYPE: Journal; (online computer file)  
 LANGUAGE: English

AB Prostate **cancer** is the most commonly diagnosed **cancer** in men and one of the leading causes of **cancer** deaths. There is strong genetic evidence indicating that a large proportion of prostate **cancers** are caused by heritable factors but the search for prostate **cancer** susceptibility genes has thus far remained elusive. TGFBR1\*6A, a common hypomorphic variant of the type I Transforming Growth Factor Beta receptor, is emerging as a **tumor** susceptibility allele that predisposes to the development of breast, colon and ovarian **cancer**. The association with prostate **cancer** has not yet been explored. A total of 907 cases and controls from New York City were genotyped to test the hypothesis that TGFBR1\*6A may contribute to the development of prostate **cancer**. TGFBR1\*6A allelic frequency among cases (0.086) was slightly higher than among controls (0.080) but the differences in TGFBR1\*6A genotype distribution between cases and controls did not reach statistical significance. The authors' data suggest that TGFBR1\*6A does not contribute to the development of prostate **cancer**.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:677256 HCPLUS  
 DOCUMENT NUMBER: 141:185361  
 TITLE: Single injection of naked plasmid encoding  $\alpha$ -melanocyte-stimulating hormone protects against thioacetamide-induced acute liver failure in mice

AUTHOR(S) : Wang, Cheng-Haung; Jawan, Bruno; Lee, Tsung-Hsing; Hung, Kuo-Sheng; Chou, Wen-Ying; Lu, Cheng-Nann; Liu, Jong-Kang; Chen, Yann-Jang

CORPORATE SOURCE: Department of Anesthesiology, Kaohsiung Chang-Gung Memorial Hospital, Kaohsiung, Taiwan, Peop. Rep. China

SOURCE: Biochemical and Biophysical Research Communications (2004), 322(1), 153-161

CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Oxidative stress has been implicated in the propagation of acute liver injury. The aim of our study was to investigate whether gene transfer of  $\alpha$ -MSH, a potent anti-inflammatory peptide, could prevent fulminant hepatic failure in mice. Acute liver damage was induced by i.p. administration of thioacetamide. Hydrodynamics-based gene transfection with  $\alpha$ -MSH expression plasmid via rapid tail vein injection was initiated 1 day prior to intoxication. The mortality in the  $\alpha$ -MSH-treated mice was significantly lower compared to the vehicle group 3 days after injury. Liver histol. significantly improved and TUNEL-pos. hepatocytes decreased in the treated mice. The degradation of I $\kappa$ B $\alpha$ , endogenous inhibitor of nuclear factor  $\kappa$ B, and upregulation of inducible nitric oxide synthase and tumor necrosis factor- $\alpha$  mRNA levels were prevented in the  $\alpha$ -MSH-treated group, indicating decreased oxidative stress and inflammation. These results suggest  $\alpha$ -MSH gene therapy might protect against acute hepatic necroinflammatory damage with further potential applications.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:674304 HCAPLUS

DOCUMENT NUMBER: 142:127153

TITLE: Protective Effect of MDL28170 against Thioacetamide-Induced Acute Liver Failure in Mice

AUTHOR(S) : Wang, Cheng-Haung; Chen, Yann-Jang; Lee, Tsung-Hsing; Chen, Yi-Shen; Jawan, Bruno; Hung, Kuo-Sheng; Lu, Cheng-Nan; Liu, Jong-Kang

CORPORATE SOURCE: Department of Biological Sciences, National Sun Yat-sen University, Taichung, Peop. Rep. China

SOURCE: Journal of Biomedical Science (Basel, Switzerland) (2004), 11(5), 571-578

CODEN: JBCIEA; ISSN: 1021-7770

PUBLISHER: S. Karger AG

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Liver injury is known to often progress even after the hepatotoxicant is dissipated. The hydrolytic enzyme calpain, which is released from dying hepatocytes, destroys the surrounding cells and results in progression of injury. Therefore, control of calpain activation may be a suitable therapeutic intervention in cases of fulminant hepatic failure. This study evaluated the effects of a potent cell-permeable calpain inhibitor, MDL28170, and its mechanisms of action on thioacetamide (TAA)-induced hepatotoxicity in mice. We found that MDL28170 significantly decreased mortality and change in serum transaminase after TAA administration. The necroinflammatory response in the liver was also suppressed. Furthermore, a significant suppression of hepatocyte apoptosis could be found by terminal deoxynucleotidyl transferase-mediated deoxyuridine triphosphate nick-end labeling assay. The upregulation of inducible nitric oxide

synthase (iNOS) and tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ), both of which are known to mediate the propagation of inflammation, was abolished. MDL2810 also effectively blocked hepatic stellate cell activation, which is assumed to be the early step in liver fibrosis. These results demonstrated that MDL28170 attenuated TAA-induced acute liver failure by inhibiting hepatocyte apoptosis, abrogating iNOS and TNF- $\alpha$  mRNA upregulation and blocking hepatic stellate cell activation.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:503316 HCPLUS  
 DOCUMENT NUMBER: 142:48607  
 TITLE: Effect of several venom components of *Bungarus multicinctus* on SWO cells  
 AUTHOR(S): Liu, Jiesheng; Xing, Shaojing; Chen, Yong; Yang, Weidong  
 CORPORATE SOURCE: Life Science and Technology College, Jinan University, Guangzhou, 510632, Peop. Rep. China  
 SOURCE: Zhongguo Yaolixue Yu Dulixue Zazhi (2003), 17(4), 286-288  
 CODEN: ZYYZEW; ISSN: 1000-3002  
 PUBLISHER: Zhongguo Yaolixue Yu Dulixue Zazhi Biarjibu  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese

AB The cytotoxicity of the venom components was determined and the possibility of induction of apoptosis by them was analyzed. MTT bioassay was used to test the growth of the tumor cell. The apoptotic effect was detected by flow cytometry. SWO cells were sensitive to crude venom, peak III toxin and standard  $\alpha$ -bungarotoxin, whereas other venom components showed no effect on SWO cells. IC50 of 3 effective toxins on SWO cells was lower than IC50 on control NIH3T3 cells. The sub-G1 (apoptosis) peak did not appear in flow cytometry. The crude venom and peak III toxin from *Bungarus multicinctus* showed cytotoxicity on glioma cells, but no apoptosis was observed

L23 ANSWER 8 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:476331 HCPLUS  
 DOCUMENT NUMBER: 142:154083  
 TITLE: Expressions of B7-1 and MHC molecules in patients with acute leukemia (AL)  
 AUTHOR(S): Ma, Xiaorong; Zhang, Wanggang; Chen, Yinxia; Cao, Xingmei; He, Aili; Liu, Jie; Tian, Wei; Zhang, Hui  
 CORPORATE SOURCE: Second Hospital, Xian Jiaotong University, Xian, Shanxi Province, 710004, Peop. Rep. China  
 SOURCE: Disi Junyi Daxue Xuebao (2003), 24(13), 1216-1217  
 CODEN: DJDXEG; ISSN: 1000-2790  
 PUBLISHER: Disi Junyi Daxue Xuebao Bianjibu  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese

AB With a group of monoclonal antibodies (MoAbs) and by direct or indirect immunofluorescence, the expressions of B7-1 and MHC mols. on the surface of hematol. malignant tumor cells in 52 cases of acute leukemia (AL) and bone marrow mononuclear cells (BMMC) in 34 healthy persons were detected. All samples were strongly pos. (100%) for MHC I class mol. The pos. expression rate of MHC II class mol. was 92%. B7-1 mol. expression was highest (8/11) in acute monocytic leukemia (M5), but deficient in acute myelogenous leukemia (M1, M2, M3). Deficiency of B7-1 is an

important cause for leukemic cells to evade host immunosurveillance and may play an important role in the pathogenesis of AL.

L23 ANSWER 9 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:350210 HCPLUS  
DOCUMENT NUMBER: 141:376609  
TITLE: Improvement of two-dimensional electrophoresis for proteomic research of colorectal carcinoma and its preliminary analysis  
AUTHOR(S): Liu, Jianping; Chen, Yuanguang;  
Chen, Guohua; Zhou, Ping; Chen, Benmei  
CORPORATE SOURCE: Xiangya School of Medicine, Central South University, Changsha, Hunan Province, 410078, Peop. Rep. China  
SOURCE: Shengming Kexue Yanjiu (2003), 7(3), 214-218  
CODEN: SKY AFL; ISSN: 1007-7847  
PUBLISHER: Shengming Kexue Yanjiu Bianji Weiyuanhui  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese  
AB Two-dimensional electrophoresis (2-DE) for colorectal carcinoma proteomic research, including the conditions for sample preparation, rehydration, isoelec. focusing, equilibration and other steps were established and improved, and a high resolution and reproducible 2-DE image was successfully obtained. In three different expts. the total number of protein spots was  $1186 \pm 46$ , the average deviations for protein position in IEF direction was  $1.67 \pm 0.29$  mm and  $1.41 \pm 0.16$  mm in SDS-PAGE direction, and the relative standard deviations for protein value was  $6.67\% \pm 2.25\%$ . Some spots showed different expressions after preliminary anal. by ImageMaster 2D Elite software.

L23 ANSWER 10 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:261890 HCPLUS  
DOCUMENT NUMBER: 141:64546  
TITLE: Novel kringle mutant of prourokinase suppressing tumor growth  
AUTHOR(S): Cao, Zhong-Wei; Ding, Bi-Sen; Chen, Xin-Yuan; Zhou, Ying-Jiang; Wang, Shi-Quan; Zhang, Jing; Zhu, Zhen-Hua; Chen, Yu-Hong; Liu, Jian-Ning  
CORPORATE SOURCE: Institute of Molecular Medicine, Nanjing University, Nanjing, 210093, Peop. Rep. China  
SOURCE: Nanjing Daxue Xuebao, Ziran Kexue (2004), 40(1), 28-33  
CODEN: NCHPAZ; ISSN: 0469-5097  
PUBLISHER: Nanjing Daxue Xuebao Bianjibu  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese  
AB Kringles of plasminogen and other proteins, obtained by proteolytic fragments, have been reported to display the anti-tumor activity, which represent potent anti-cancer candidates. However, there remains controversy on whether it is the sequence or the tertiary structure that renders Kringle the anti-tumor activity. In order to address such an issue, we cloned the genes of Kringle of prourokinase and obtained its mutant by inserting a previously demonstrated fragment of 16 amino acids from Kringle 5 of plasminogen that manifested anti-tumor activity. The constructed recombinant vectors pET29a were expressed in E. coli BL21 (DE3), induced by IPTG. Prourokinase Kringle and the mutant were first purified by Ni-NTA affinity chromatog. and then subjected to renaturation. Finally, the folding solns. were applied to CM ion-exchange chromatog. for further purification and concentration. As a result, appropriately folded proteins with high purity were obtained, which were confirmed by SDS-PAGE anal. To compare the in vivo

anti-tumor activities of prourokinase Kringle and its mutant, male 6-wk C57/BL6 mice were used for tumor study. Lewis lung carcinoma cells were s.c. injected and the anti-tumor efficacy was evaluated on the basis of tumor volume. Here, prourokinase Kringle almost displayed no anti-tumor activity while its mutant comparatively stifled the growth of s.c. tumor, illustrating that equipping proteins with certain anti-tumor fragment will inhibit tumor growth and it is the amino acid sequence rather than the tertiary structure of protein that enables several Kringle structures to prevent tumor from growing.

L23 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:147313 HCAPLUS  
 DOCUMENT NUMBER: 141:48541  
 TITLE: Polypeptide inhibiting the growth and migration of vascular endothelial cells and endothelial stem cells, its preparation and application  
 INVENTOR(S): Liu, Jianning; Chen, Yuhong  
 PATENT ASSIGNEE(S): Institute of Molecular Medicine, Nanjing University, Peop. Rep. China; Landing Science Technology Co., Ltd., Nanjing  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1377887	A	20021106	CN 2001-108179	20010404
PRIORITY APPLN. INFO.:			CN 2001-108179	20010404

AB The amino acid sequence of a 16-AA polypeptide inhibiting the growth and migration of vascular endothelial cells and endothelial stem cells, derived from plasminogen Kringle 5 degradation products, is provided. The polypeptide is prepared by synthesizing a synthetic gene comprising two oligonucleotides: the coding strand containing a codon ATG at its 3' end, and the complementary strand containing a codon CAT at its 3' end; linking the synthetic gene with DNA ligase T4 to obtain a tandem gene; subcloning it into vector pET31b and transforming into E.coli BLR(DE3)plyS for recombinant expression. The recombinant products are expressed under IPTG induction of IPTG, separated and purified via affinity chromatog. and dialysis, fragmentated with CNBr, and extracted. The polypeptide may be used for treatment of endothelial growth related diseases (such as solid tumor, obesity, diabetes mellitus, atherosclerosis, and etc.).

L23 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:48409 HCAPLUS  
 DOCUMENT NUMBER: 140:70391  
 TITLE: Helicobacter pylori eradication to prevent gastric cancer in a high-risk region of China. A randomized controlled trial  
 AUTHOR(S): Wong, Benjamin Chun-Yu; Lam, Shiu Kum; Wong, Wai Man; Chen, Jian Shun; Zheng, Ting Ting; Feng, Rui E.; Lai, Kam Chuen; Cheng, Wayne Hsing; Yuen, Siu Tsan; Leung, Suet Yi; Fong, Daniel Yee; Ho, Joanna; Ching, Chi Kong; Chen, Jun Shi; Hui, Wai Mo; Ng, Matthew; Lai, Ching Lung; Ong, Leslie Y.; Lin, Shao Kai; Chen, Bao Wen; Wang, Wei Hong; Liu, Ping; Gu, Qing; Zhang, Shu Tian; Wu, Yung Ning; Zhang, Jian Zhong; Yin, Yan; He,

Li Hua; Li, Jing Guang; Pan, Xiu Zhen; Gao, Zen;  
Chen, Yung; Zhang, Chang Fei; Huang, Dong;  
Zheng, Dun Yan; Wu, Yi Hui; Lin, C. Q.; Wu, Jin Ping;  
Chen, Xin Cong; Lin, Z. C.; Jiang, Xi Wang; Hou, Xiao  
Hua; Liu, Jin; Lu, Jia Yang; Liang, Ying  
Jie; Lai, Ying Rong

CORPORATE SOURCE: China Gastric Cancer Study Group, Department of  
Medicine, University of Hong Kong, Hong Kong, Peop.  
Rep. China

SOURCE: JAMA, the Journal of the American Medical Association  
(2004), 291(2), 187-194  
CODEN: JAMAAP; ISSN: 0098-7484

PUBLISHER: American Medical Association

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Context: Although chronic *Helicobacter pylori* infection is associated with **gastric cancer**, the effect of *H. pylori* treatment on prevention of **gastric cancer** development in chronic carriers is unknown. Objective: To determine whether treatment of *H. pylori* infection reduces the incidence of **gastric cancer**. Design, Setting, and Participants: Prospective, randomized, placebo-controlled, population-based primary prevention study of 1630 healthy carriers of *H. pylori* infection from Fujian Province, China, recruited in July 1994 and followed up until Jan. 2002. A total of 988 participants did not have **precancerous** lesions (gastric atrophy, intestinal metaplasia, or gastric dysplasia) on study entry. Intervention: Patients were randomly assigned to receive *H. pylori* eradication treatment: a 2-wk course of omeprazole, 20 mg, a combination product of amoxicillin and clavulanate potassium, 750 mg, and metronidazole, 400 mg, all twice daily (n=817); or placebo (n=813). Main Outcome Measures: The primary outcome measure was incidence of **gastric cancer** during follow-up, compared between *H. pylori* eradication and placebo groups. The secondary outcome measure was incidence of **gastric cancer** in patients with or without **precancerous** lesions, compared between the 2 groups. Results: Among the 18 new cases of **gastric cancers** that developed, no overall reduction was observed in participants who received *H. pylori* eradication treatment (n=7) compared with those who did not (n=11) (P=.33). In a subgroup of patients with no **precancerous** lesions on presentation, no patient developed **gastric cancer** during a follow-up of 7.5 yr after *H. pylori* eradication treatment compared with those who received placebo (0 vs. 6; P=.02). Smoking (hazard ratio [HR], 6.2; 95% confidence interval [CI], 2.3-16.5; P<.001) and older age (HR, 1.10; 95% CI, 1.05-1.15; P<.001) were independent risk factors for the development of **gastric cancer** in this cohort. Conclusions: Authors found that the incidence of **gastric cancer** development at the population level was similar between participants receiving *H. pylori* eradication treatment and those receiving placebo during a period of 7.5 yr in a high-risk region of China. In the subgroup of *H. pylori* carriers without **precancerous** lesions, eradication of *H. pylori* significantly decreased the development of **gastric cancer**. Further studies to investigate the role of *H. pylori* eradication in participants with **precancerous** lesions are warranted.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 13 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:922824 HCPLUS

DOCUMENT NUMBER: 140:70547

TITLE: Inhibitory Effect of Caffeic Acid Phenethyl Ester on Angiogenesis, **Tumor** Invasion, and Metastasis

AUTHOR(S) : Liao, Hui-Fen; Chen, Yu-Ywan; Liu, Jun-Jen; Hsu, Ming-Ling; Shieh, Hui-Ju; Liao, Hung-Jen; Shieh, Chwen-Jen; Shiao, Ming-Shi; Chen, Yu-Jen

CORPORATE SOURCE: Departments of Medical Research and Radiation Oncology, Mackay Memorial Hospital, Taipei, 104, Taiwan

SOURCE: Journal of Agricultural and Food Chemistry (2003), 51(27), 7907-7912

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Caffeic acid phenethyl ester (CAPE) derived from honeybee propolis has been used as a folk medicine and has several proven biol. activities. The present study investigated the effect of CAPE on angiogenesis, **tumor** invasion, and metastasis. A cytotoxicity assay of CAPE in CT26 colon adenocarcinoma cells showed a dose-dependent decrease in cell viability but no significant influence on the growth of human umbilical vein epithelial cells (HUVEC). A low concentration of CAPE (1.5  $\mu$ g/mL) inhibited 52.7% of capillary-like tube formation in HUVEC culture on Matrigel. CAPE (6  $\mu$ g/mL)-treated CT26 cells showed not only inhibited cell invasion by 47.8% but also decreased expression of matrix metalloproteinase (MMP)-2 and -9. Vascular endothelial growth factor (VEGF) production from CT26 cells was also inhibited by treatment with CAPE (6  $\mu$ g/mL). I.p. injection of CAPE (10 mg/kg/day) in BALB/c mice reduced the pulmonary metastatic capacity of CT26 cells accompanied with a decreased plasma VEGF level. CAPE treatment also prolonged the survival of mice implanted with CT26 cells. These results indicate that CAPE has potential as an antimetastatic agent.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 14 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:889369 HCPLUS

DOCUMENT NUMBER: 140:88471

TITLE: Genotypic analysis of esophageal squamous cell carcinoma by molecular cytogenetics and real-time quantitative polymerase chain reaction

AUTHOR(S) : Yen, Chueh-Chuan; Chen, Yann-Jang; Lu, Kai-Hsi; Hsia, Jiun-Yi; Chen, Jung-Ta; Hu, Cheng-Po; Chen, Po-Min; Liu, Jin-Hwang; Chiou, Tzeon-Jye; Wang, Wei-Shu; Yang, Muh-Hwa; Chao, Ta-Chung; Lin, Chi-Hung

CORPORATE SOURCE: Division of Medical Oncology, Department of Medicine, Taipei Veterans General Hospital, Taipei, Peop. Rep. China

SOURCE: International Journal of Oncology (2003), 23(4), 871-881

CODEN: IJONES; ISSN: 1019-6439

PUBLISHER: International Journal of Oncology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We performed an integrated cytogenetic study using a combination of comparative genomic hybridization (CGH), spectral karyotyping (SKY) and fluorescence in situ hybridization (FISH) to analyze chromosomal aberrations associated with 8 human esophageal squamous cell carcinoma (EC-SCC) cell lines, and used real-time quant. PCR (Q-PCR) to study the copy number changes of two candidate genes of chromosome 3q, PIK3CA and TP63, in 20 primary **tumors** of EC-SCC. The pooled CGH results revealed

frequent gain abnormalities on chromosome arms 1p, 1q, 3q, 5p, 6p, 7p, 7q, 8q, 9q, 11q, 12p, 14q, 15q, 16p, 16q, 17q, 18p, 19q, 20q, 22q, and Xq, while frequent losses were found on 3p, 4, 5q, 6q, 7q, 9p, and 18q. SKY detected 195 translocations, 13 deletions and 2 duplications. Among the 374 breakpoints, most clustered at the centromeric regions, such as 8q10, 13q10, 7q10, 9q10, 14q10, 15q10, 16q10, 21q10, and 22q10, but also at other regions, including 3q (3q21, 3q22, 3q25), 7p (7p22, 7p14, 7p12), 7q (7q21, 7q31, 7q32), 8q (8q21.1, 8q23), 11q (11q21, 11q24), 13q (13q14) and 18q (18q21). There was a good correlation between the number of aberrations identified by CGH and SKY ( $r=0.667$ ;  $p=0.035$ ). Combined CGH and SKY analyses indicated that chromosomes 3, 7, 9, 11, 14, 16, 18, 19, 20, and 22 harbored higher frequency of chromosomal aberrations than expected. FISH using BAC clones containing oncogene PIK3CA and TP63 found that both genes were amplified in 6 and 5 cell lines, resp. Q-PCR anal. of primary tumors revealed amplification of PIK3CA and TP63 in 100% and 80% of the cases. Average copy number of PIK3CA per haploid genome was greater than that of TP63 (6.27 vs 2.73), and the difference showed statistical significance ( $p<0.001$ ). Combination of CGH, SKY and FISH could reveal detailed chromosomal changes associated with esophageal cancer cells, and Q-PCR could assess the change of the candidate genes in clin. samples in a high throughput way.

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 15 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:556868 HCPLUS  
 DOCUMENT NUMBER: 137:260612  
 TITLE: Mediation of the DCC apoptotic signal by DIP13 $\alpha$   
 AUTHOR(S): Liu, Jiayou; Yao, Fayi; Wu, Ruping; Morgan, Michael; Thorburn, Andrew; Finley, Russell L., Jr.; Chen, Yong Q.  
 CORPORATE SOURCE: Department of Pathology, Wayne State University, Detroit, MI, 48201, USA  
 SOURCE: Journal of Biological Chemistry (2002), 277(29), 26281-26285  
 CODEN: JBCHA3; ISSN: 0021-9258  
 PUBLISHER: American Society for Biochemistry and Molecular Biology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB DCC (deleted in colorectal cancer) is a candidate tumor suppressor gene. However the function of DCC remains elusive. Previously, the authors demonstrated that forced expression of DCC induces apoptosis or cell cycle arrest. To delineate the DCC-induced apoptotic pathway, the authors have identified a protein, DIP13 $\alpha$ , which interacts with DCC. The DIP13 $\alpha$  protein has a pleckstrin homol. domain and a phosphotyrosine binding domain. It interacts with a region on the DCC cytoplasmic domain that is required for the induction of apoptosis. Although ectopic expression of DIP13 $\alpha$  alone causes only a slight increase in apoptosis, co-expression of DCC and DIP13 $\alpha$  results in an apprx.5-fold increase in apoptosis. Removal of the DCC-interacting domain on DIP13 $\alpha$  abolishes its ability to enhance DCC-induced apoptosis. Inhibition of endogenous DIP13 $\alpha$  expression by small interfering RNA blocks DCC-induced apoptosis. The authors' data suggest that DIP13 $\alpha$  is a mediator of the DCC apoptotic pathway.  
 REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 16 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:656 HCAPLUS  
DOCUMENT NUMBER: 136:399419  
TITLE: Comparative genomic hybridization of esophageal squamous cell carcinoma: Correlations between chromosomal aberrations and disease progression/prognosis  
AUTHOR(S): Yen, Chueh-Chuan; Chen, Yann-Jang; Chen, Jung-Ta; Hsia, Jiun-Yi; Chen, Po-Min; Liu, Jin-Hwang; Fan, Frank S.; Chiou, Tzeon-Jye; Wang, Wei-Shu; Lin, Chi-Hung  
CORPORATE SOURCE: Division of Medical Oncology, Department of Medicine, Taipei Veterans General Hospital, Taipei, Taiwan  
SOURCE: Cancer (New York, NY, United States) (2001), 92(11), 2769-2777  
PUBLISHER: John Wiley & Sons, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Esophageal carcinoma is a major cause of cancer-related deaths among males in Taiwan. However, to date, the genetic alterations that accompany this lethal disease are not understood. Chromosomal aberrations of 46 samples of esophageal squamous cell carcinoma (EC-SCC) were analyzed by comparative genomic hybridization (CGH), and their correlations with pathol. staging and prognosis were analyzed statistically. In total, 321 gains and 252 losses were found in 46 tumor samples; thus, the average gains and losses per patient were 6.98 and 5.47, resp. Frequent gain abnormalities were found on chromosome arms 1q, 2q, 3q, 5p, 7p, 7q, 8q, 11q, 12p, 12q, 14q, 17q, 20q, and Xq. Frequent deletions were found on chromosome arms 1p, 3p, 4p, 5q, 8p, 9p, 9q, 11q, 13q, 16p, 17p, 18q, 19p, and 19q. It was found that deletions of 4p and 13q12-q14 and gain of 5p were significantly correlated with pathol. staging. Losses of 8p22-pter and 9p also were found more frequently in patients with advanced disease. Gain of 8q24-qter was seen more frequently in patients with Grade 3 tumors. A univariate anal. found that pathol. staging; gains of 5p and 7q; and deletions of 4p, 9p, and 11q were significant prognostic factors. However, pathol. staging became the only significant factor in a multivariate anal. CGH not only revealed novel chromosomal aberrations in EC-SCC, but also found possible genotypic changes associated with disease progression. Despite all of the possible assocns. of chromosomal aberrations with disease progression, the most important prognostic factor for patients with EC-SCC was pathol. staging.  
REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2001:931465 HCAPLUS  
DOCUMENT NUMBER: 137:134450  
TITLE: Structure-effect relationship of benzodihydropyran derivatives against osteoporosis  
AUTHOR(S): Xiong, Xiaoyun; Chen, Yaqiong; Zou, Yong; Mei, Qibing; Zhao, Dehua; Sun, Lan; Liu, Jingsheng  
CORPORATE SOURCE: Department of Pharmacology, Fourth Military Medical University, Xi'an, 710032, Peop. Rep. China  
SOURCE: Zhongguo Yaolixue Tongbao (2001), 17(5), 518-521  
PUBLISHER: Anhui Yike Daxue Linchuan Yaoli Yanjiuso  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese  
AB To provide theor. data for designing optimal drugs against postmenopausal

osteoporosis, a study of the structure-activity relationship of benzodihydropyran derivs. was carried out. A series of benzodihydropyran derivs. (A-E) were designed and synthesized on the basis of comprehensive observations of raloxifene and ipriflavone. The effect of compound A against osteoporosis was evaluated with ovariectomized rats *in vivo*. The effects of compound C and C + estradiol on the **proliferation** of human osteoblast HOS TE85 were studied in cell culture. In addition, the effects of compds. B-E (10<sup>-7</sup> mol L<sup>-1</sup>) on the **proliferation** of human osteoblast HOS TE85 were also studied. A had some effect against osteoporosis on ovariectomized rats. C (10<sup>-9</sup>mol L<sup>-1</sup>, 10<sup>-7</sup> mol L<sup>-1</sup>) significantly increased **proliferation** of HOS TE85 and C + estradiol antagonized the **proliferation** of HOS TE85 induced by estradiol. Therefore C might be a part agonist of estrogen receptor. C and D (10<sup>-7</sup> mol L<sup>-1</sup>) significantly increased **proliferation** of HOS TE85. It is feasible that drugs against postmenopausal osteoporosis may be designed by introducing basic groups to the side chain of A and modifying the structure of A.

L23 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:351110 HCAPLUS  
 DOCUMENT NUMBER: 135:222039  
 TITLE: Cloning, expression, purification and identification  
       of kringle 5 domain of human plasminogen  
 AUTHOR(S): Chen, Hao; Chen, Yuhong; Zhang, Jing;  
           Liu, Jianning; Zhu, Dexu  
 CORPORATE SOURCE: Inst. Molecular Med., Nanjing Univ., Nanjing, 210093,  
                   Peop. Rep. China  
 SOURCE: Nanjing Daxue Xuebao, Ziran Kexue (2001), 37(2),  
           218-222  
 CODEN: NCHPAZ; ISSN: 0469-5097  
 PUBLISHER: Nanjing Daxue  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese

AB Angiostatin is a potent angiogenesis inhibitor which has been identified as an internal fragment of plasminogen that includes its first four kringle modules. The kringle 5 domain of human plasminogen would appear to be more potent than angiostatin on inhibition of basic fibroblast growth factor-stimulated capillary endothelial cell **proliferation**. The gene-encoding for kringle 5 domain of human plasminogen was obtained by PCR using human plasminogen cDNA as template. The amplified fragment was cloned into the vector pET25b(+) to construct the recombinant expression vector. Upon induction with IPTG, the *Escherichia coli* BL21(DE3) containing the recombinant plasmid could express a distinct band with a mol. weight of 12 kD. Most of the kringle 5 was expressed in the form of the inclusion body without biol. activity. The inclusion body was refolded *in vitro* and purified with SP-Sepharose FF ion-exchange chromatog. After single step elution, the sample was purified and it showed one band by 15% SDS-PAGE anal., which was, detected by Coomassie brilliant blue stain. The purity of protein is more than 95%. The target protein also showed high activity of inhibition to bovine capillary endothelial cell **proliferation** which was induced by bFGF.

L23 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:770392 HCAPLUS  
 DOCUMENT NUMBER: 134:320578  
 TITLE: Biological activity of cryptate lanthanide  
       polyoxometalates  
 AUTHOR(S): Liu, Jing-fu; Chen, Ya-guang; Ma,  
           Jian-fang; Wang, Xiao-hong; Liu, Ya  
 CORPORATE SOURCE: Department of Chemistry, Northeast Normal University,

SOURCE: Changchun, 130024, Peop. Rep. China  
 Zhongguo Xitu Xuebao (2000), 18(3), 282-285  
 CODEN: ZXXUE5; ISSN: 1000-4343

PUBLISHER: Yejin Gongye Chubanshe  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese

AB **Antitumor** and anti-HIV activity of the cryptate lanthanide polyoxoanion [TbAs<sub>4</sub>W<sub>40</sub>O<sub>140</sub>]<sub>27</sub><sup>-</sup> and [PrSb<sub>9</sub>W<sub>21</sub>O<sub>86</sub>]<sub>16</sub><sup>-</sup> were reported. Exptl. results indicate that the complexes display inhibitory action to HL-60, B16, H22 **cancers** and rectum as well as breast **cancer** cells, and decrease substantially **tumor** weight and delay survival time of mice bearing with S180 ascites **cancer** during animal **tumor** implantation test. TbAs<sub>4</sub>W<sub>40</sub> displays an in vivo anti-Rauscher and LP-BM5 MuLV activity.

L23 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2000:200337 HCAPLUS  
 DOCUMENT NUMBER: 133:30810  
 TITLE: Synthesis, characterization and biological activity of organotitanium substituted heteropolytungstates  
 AUTHOR(S): Wang, Xiao-Hong; Liu, Jing-Fu; Chen, Ya-Guang; Liu, Qun; Liu, Ju-Tao; Pope, M. T.  
 CORPORATE SOURCE: Department of Chemistry, Northeast Normal University, Changchun, 130024, Peop. Rep. China  
 SOURCE: Dalton (2000), (7), 1139-1142  
 CODEN: DALTFG  
 PUBLISHER: Royal Society of Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Eight new compds.  $\alpha$ - and  $\beta$ -MxHy[(CpTi)XW9O<sub>37</sub>]<sub>n</sub>H<sub>2</sub>O (M = K<sup>+</sup>, x = 4, y = 3; M = NBu<sub>4</sub><sup>+</sup>, x = 7, y = 0; X = Si, Ge) were synthesized from vacant heteropolytungstate precursors  $\alpha$ -,  $\beta$ -[XW<sub>9</sub>O<sub>34</sub>]<sub>10</sub><sup>-</sup> (X = Si, Ge) and Cp<sub>2</sub>TiCl<sub>2</sub>. The products were characterized by elemental anal., IR, UV-visible spectroscopy, <sup>1</sup>H NMR, <sup>183</sup>W NMR spectroscopy and polarogr. <sup>183</sup>W NMR spectra of the complexes support the stoichiometry of the new heteropolyanions and the probable retention of the A-XW<sub>9</sub> units in H<sub>2</sub>O. The organotitanium substituted complexes showed promising activity in two human **tumor** cell lines in vitro.  
 REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1999:742373 HCAPLUS  
 DOCUMENT NUMBER: 131:331850  
 TITLE: Studies on treatment of acute promyelocytic leukemia with arsenic trioxide: remission induction, follow-up, and molecular monitoring in 11 newly diagnosed and 47 relapsed acute promyelocytic leukemia patients  
 AUTHOR(S): Niu, Chao; Yan, Hua; Yu, Ting; Sun, Hui-Ping; Liu, Jian-Xiang; Li, Xiu-Song; Wu, Wen; Zhang, Fen-Qin; Chen, Yu; Zhou, Li; Li, Jun-Min; Zeng, Xiao-Ying; Yang, Ren-Rong; Ou, Yuan, Mi-Man; Ren, Mei-Yu; Gu, Feng-Ying; Cao, Qi; Gu, Bo-Wei; Su, Xin-Ying; Chen, Guo-Qiang; Xiong, Shu-Min; Zhang, Ting-Dong; Waxman, Samuel; Wang, Zhen-Yi; Chen, Zhu; Hu, Jiong; Shen, Zhi-Xiang; Chen, Sai-Juan  
 CORPORATE SOURCE: Shanghai Institute of Hematology, Department of Hematology/Oncology, Rui Jin Hospital, Shanghai Second Medical University, Shanghai, 200025, Peop. Rep. China

SOURCE: Blood (1999), 94(10), 3315-3324  
 CODEN: BLOOAW; ISSN: 0006-4971  
 PUBLISHER: W. B. Saunders Co.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Fifty-eight acute promyelocytic leukemia (APL) patients (11 newly diagnosed and 47 relapsed) were studied for arsenic trioxide (As2O3) treatment. Clin. complete remission (CR) was obtained in 8 of 11 (72.7%) newly diagnosed cases. However, As2O3 treatment resulted in hepatic toxicity in 7 cases including 2 deaths, in contrast to the mild liver dysfunction in one third of the relapsed patients. Forty of forty-seven (85.1%) relapsed patients achieved CR. Two of three nonresponders showed clonal evolution at relapse, with disappearance of t(15;17) and PML-RAR $\alpha$  fusion gene in 1 and shift to a dominant AML-1-ETO population in another, suggesting a correlation between PML-RAR $\alpha$  expression and therapeutic response. In a follow-up of 33 relapsed cases over 7 to 48 mo, the estimated disease-free survival (DFS) rates for 1 and 2 yr were 63.6% and 41.6%, resp., and the actual median DFS was 17 mo. Patients with white blood cell (WBC) count below 10+10<sup>9</sup>/L at relapse had better survival than those with WBC count over 10+10<sup>9</sup>/L (P=.038). The duration of As2O3-induced CR was related to postremission therapy, because there was only 2 of 11 relapses in patients treated with As2O3 combined with chemotherapy, compared with 12 of 18 relapses with As2O3 alone (P =.01). Reverse transcription polymerase chain reaction (RT-PCR) anal. in both newly diagnosed and relapsed groups showed long-term use of As2O3 could lead to a mol. remission in some patients. We thus recommend that ATRA be used as first choice for remission induction in newly diagnosed APL cases, whereas As2O3 can be either used as a rescue for relapsed cases or included into multidrug consolidation/maintenance clin. trials.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 22 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:374965 HCPLUS  
 DOCUMENT NUMBER: 129:117033  
 TITLE: Synthesis and characterization of novel heteropoly-tungstoarsenates containing lanthanides [LnAs<sub>4</sub>W<sub>40</sub>O<sub>140</sub>]<sub>25</sub><sup>-</sup> and their biological activity  
 AUTHOR(S): Liu, Jing-Fu; Chen, Ya-Guang;  
 Meng, Lu; Guo, Jun; Liu, Ya; Pope, Michael T.  
 CORPORATE SOURCE: Department of Chemistry Northeast Normal University, Changchun, 130024, Peop. Rep. China  
 SOURCE: Polyhedron (1998), 17(9), 1541-1546  
 CODEN: PLYHDE; ISSN: 0277-5387  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Lanthanide polyoxoanions [LnAs<sub>4</sub>W<sub>40</sub>O<sub>140</sub>]<sub>25</sub><sup>-</sup> (Ln = La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy or Yb) were prepared from the cryptate anion [NaAs<sub>4</sub>W<sub>40</sub>O<sub>140</sub>]<sub>27</sub><sup>-</sup> and lanthanides and characterized by elemental anal., <sup>183</sup>W NMR, emission spectra. A number of evidences indicate that the lanthanides occupy the central site in the complexes. The title complexes display antitumor activity in vitro and in vivo.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 23 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1997:742139 HCPLUS  
 DOCUMENT NUMBER: 128:60056

TITLE: P53, P21 and C-erbB-2 protein expression and relationship with biological behavior of lung carcinoma  
 AUTHOR(S): Ye, Tingjun; Shou, Weizhen; Chen, Yonglian; Liu, Jingming  
 CORPORATE SOURCE: Department of Pathology, Changzhen Hospital, Shanghai, 200003, Peop. Rep. China  
 SOURCE: Shaanxi Yixue Zazhi (1997), 26(3), 165-167  
 CODEN: SYZAEL; ISSN: 1000-7377  
 PUBLISHER: Shaanxi Yixue Zazhi Bianji Weiyuanhui  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB 48 Patients with lung carcinoma were histopathol. examined for the oncogene related proteins. Expression of P53, P21 and C-erbB-2 proteins were increased in patients with lung carcinoma. The expression between lung squamous and adeno carcinoma I-II grade and III grade patients, between patients without and with metastasis observed significant difference,  $P < 0.01$ . The results suggest that these 3 oncogene related protein play different roles in the development and progress of lung carcinoma.

L23 ANSWER 24 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1997:464706 HCPLUS  
 DOCUMENT NUMBER: 127:156420  
 TITLE: Weekly 24-hour infusion of high-dose 5-fluorouracil and leucovorin in the treatment of advanced gastric cancers. An effective and low-toxic regimen for patients with poor general condition  
 AUTHOR(S): Hsu, Chih Hung; Yeh, Kun Huei; Chen, Li Tzong; Liu, Jacqueline Ming; Jan, Chan Ming; Lin, Jaw Town; Chen, Yao chang; Cheng, Ann Lii  
 CORPORATE SOURCE: Department Oncology, National Taiwan Univ., Taipei, Taiwan  
 SOURCE: Oncology (1997), 54(4), 275-280  
 CODEN: ONCOBS; ISSN: 0030-2414  
 PUBLISHER: Karger  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Patients with advanced gastric cancer were treated weekly with a 24 h infusion of 5-fluorouracil (5-FU, 2600 mg/m<sup>2</sup>) and leucovorin (HDFL, 300 mg/m<sup>2</sup>) for 14.4 courses/patient. Hematol. toxicity of this regimen was minimal, with grade 3 or 4 leukopenia developing in only 2.9% patients. Other nonhematol. toxicities were also negligible except a reversible neurotoxicity developed in 5.8% patients. 74.6% Patients were eligible for response anal., the response rate was 48%. 4% Complete responses, 44% partial responses, 20% stable diseases, and 32% progressive diseases were observed. The response rate was 48%. The median overall survival (OS) of the whole group was 7 mo, the median OS and time to progression of the responders were 8.5 and 5 mo. The palliative effect was satisfactory with the Karnofsky performance status of the responders improving from a median of 50-70%. HDFL was suggested as an effective and low-toxic palliative treatment even in patients with very poor general condition.

L23 ANSWER 25 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1996:503132 HCPLUS  
 DOCUMENT NUMBER: 125:157524  
 TITLE: Progress in iso- and hetero-poly metal compounds as antitumor and anti-HIV-1 drugs  
 AUTHOR(S): Liu, Jingfu; Chen, Yaguang  
 CORPORATE SOURCE: Dep. of Chem., Dongbei Normal Univ., Changchun, Peop.

SOURCE: Rep. China  
 Huaxue Tongbao (1996), (6), 6-12  
 CODEN: HHTPAU; ISSN: 0441-3776

PUBLISHER: Kexue  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: Chinese  
 AB A review, with 18 refs., of the progress in iso- and hetero-poly metal compds. as **antitumor** and anti-HIV-1 drugs.

L23 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1995:34393 HCAPLUS  
 DOCUMENT NUMBER: 122:73169  
 TITLE: Mutation analysis of K-ras oncogenes in gastroenterologic **cancers** by the amplified created restriction sites method  
 AUTHOR(S): Lin, Shyr Yi; Chen, Pao Huei; Wang, Chung Kwe; Liu, Jean Dean; Siauw, Chuan Pau; Chen, Yi Jen; Yang, Ming Jui; Liu, Mau Ho; Chen, Te Chuan; Chang, Jan Gowth  
 CORPORATE SOURCE: Dep. Mol. Med., Taipei Muni. Jen-Ai Hosp., Taipei, Taiwan  
 SOURCE: American Journal of Clinical Pathology (1993), 100(6), 686-9  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A rapid, simple, and nonradioactive method for diagnosing point mutations of c-K-ras oncogenes in gastroenterol. **cancers** is described. This method involved the selective amplification of DNA fragments from **cancer** tissues of surgical specimens with specific oligonucleotide primers, followed by digestion with restriction enzymes that recognized artificially created or naturally occurring restriction sites. To detect codon 12 mutations, an artificial Msp I site was created by introducing a single nucleotide mismatch into the 5' mutagenesis primer. Using a similar approach, an Hae III site was created to detect codon 13 mutations. Bal I and MBo II sites were used to detect codon 61 mutations. A total of 61 gastroenterol. **cancer** cases were studied. Of 35 cases of colorectal **cancer**, 7 showed mutations: 6 at codon 12 and 1 at codon 13. In 1 of 2 cases of cholangiocellular carcinoma, point mutation at codon 12 was found. One case of duodenal **cancer** showed point mutation at codon 12. No mutations were found in the cases of hepatocellular carcinoma (4), gastric **cancer** (12), esophageal **cancer** (3), or pancreatic **cancer** (2).

L23 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1994:676698 HCAPLUS  
 DOCUMENT NUMBER: 121:276698  
 TITLE: Isolation and characterization of polysaccharides from *Gardenia jasminoides* Ellis  
 AUTHOR(S): Meng, Yanfa; Liu, Jinhui; Li, Zhixiao; Wang, Binfeng; Jing, Lanhua; Chen, Yaozu  
 CORPORATE SOURCE: Natl. Lab. of Applied Organic Chemistry, Lanzhou Univ., 730000, Peop. Rep. China  
 SOURCE: Lanzhou Daxue Xuebao, Ziran Kexueban (1993), 29(2), 109-12  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB Polysaccharides, designated GPS4 and GPS5, were isolated from *G. jasminoides*. The crude polysaccharide was obtained by extraction with boiling

water, deproteinization, and precipitation with ethanol. The crude product was taken up in a DEAE-cellulose (DE-52) column. The GPS4 fraction was isolated by eluting with water, and GPS5 by a linear gradient (0-4 mol/L). Both fractions were further purified by chromatog. with gel filtration (Sephadex G-200). Both fractions showed chemical homogeneity by means of agarose electrophoresis, cellulose acetate membrane electrophoresis, cellulose acetate membrane electrophoresis, and glass-filter paper electrophoresis. Neither GPS4 nor GPS5 contained protein or nucleic acid. The average mol. wts. of GPS4 and GPS5 were estimated to be approx. 1.4 + 104 and 1 + 104, resp. Experimentation in vitro indicates that this polysaccharide shows an evident inhibitory activity on the cells of the implanted tumor sarcoma 180 and ascite hepatoma.

L23 ANSWER 28 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:578833 HCPLUS  
 DOCUMENT NUMBER: 119:178833  
 TITLE: Monoclonal antibody production by antigen-antibody mediated cell fusion  
 AUTHOR(S): Liu, Jilin; Qi, Kunyuan; Chen, Yuying  
 CORPORATE SOURCE: Zhenjiang Med. Coll., Zhenjiang, 212001, Peop. Rep. China  
 SOURCE: Mianyixue Zazhi (1993), 9(1), 58-60  
 CODEN: MIZAED; ISSN: 1000-8861  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese

AB Antigen (a new stomach tumor-associated antigen) was incorporated into the membrane of myeloma cells utilizing a heterobifunctional reagent SPDP. The myeloma cells coated by antigen were incubated with spleen cells from immunized mice; in this stage the myeloma cells selectively bound to antigen-reactive B-cells with the interposing antigen as a bridging ligand between the two cells. Then cell fusion was accomplished by using PEG. After 11 of these antigen-antibody mediated cell fusions, the result showed that 21.2% of hybrids secreted specific antibodies.

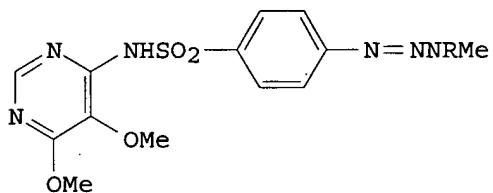
L23 ANSWER 29 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:132306 HCPLUS  
 DOCUMENT NUMBER: 118:132306  
 TITLE: Studies on sample pretreatment and determination of trace elements in antitumor Chinese medicines by atomic emission spectrometry  
 AUTHOR(S): Ye, Yuqiong; Huang, Shiyuan; Liu, Junjun; Chen, Yan  
 CORPORATE SOURCE: Dep. Chem., Sichuan Univ., Chengdu, Peop. Rep. China  
 SOURCE: Sichuan Daxue Xuebao, Ziran Kexueban (1992), 29(2), 259-63  
 CODEN: SCTHAO; ISSN: 0490-6756  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese

AB A new method, which is used for simultaneously determination of microamount of Zn,

Cu, Fe, Mn, Mo, Cr, Ni, Co and Pb in antitumor Chinese medicines by atomic emission spectrometry is presented. The sample pretreatments were investigated. The effects of spectroscopic carriers and matrix comps. on the emission intensity of elements were examined. The optimal conditions of spectro. determination were established. The relative standard deviation for most element were less than 6.4%. The recoveries were 87.0-110%. The presented procedure has been used for determining elements in practical samples with good results.

L23 ANSWER 30 OF 30 HCPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1985:6403 HCPLUS  
 DOCUMENT NUMBER: 102:6403  
 TITLE: Synthesis of aryltriazenes  
 AUTHOR(S): Liu, Jiyun; Zhang, Baoxun; Sun, Jiali;  
 Chen, Yi  
 CORPORATE SOURCE: Inst. Pharm. Sci., Tianjin, Peop. Rep. China  
 SOURCE: Yiyao Gongye (1984), (9), 20-2  
 CODEN: YIGODN; ISSN: 0255-7223  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 OTHER SOURCE(S): CASREACT 102:6403  
 GI



AB Twenty-one aryltriazenes, e.g., I (R = Me, Bu), were prepared by diazotization of p-sulfamoylanilines followed by coupling with MeNHR. Most of them showed **antitumor** activity.

=>